

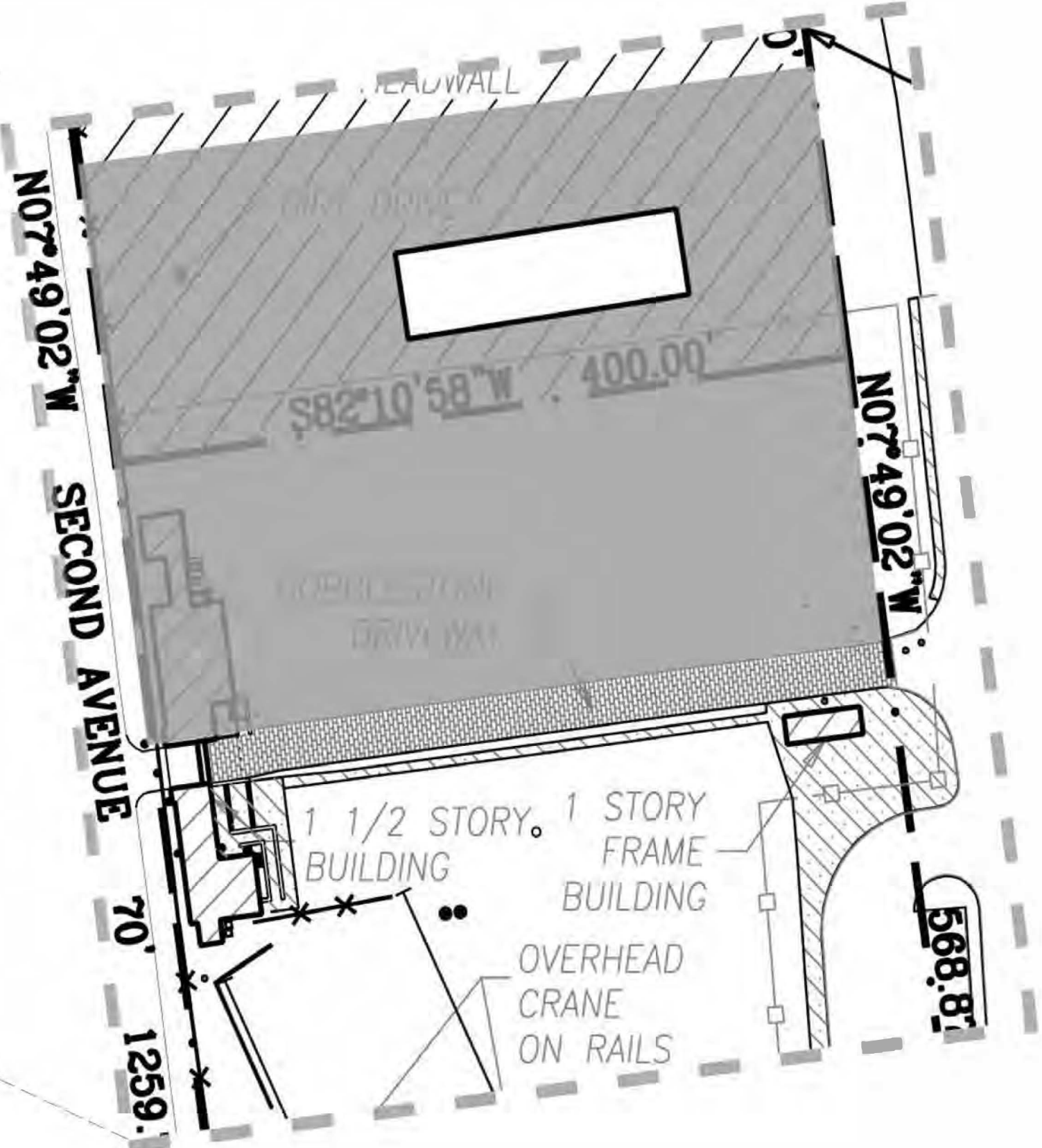
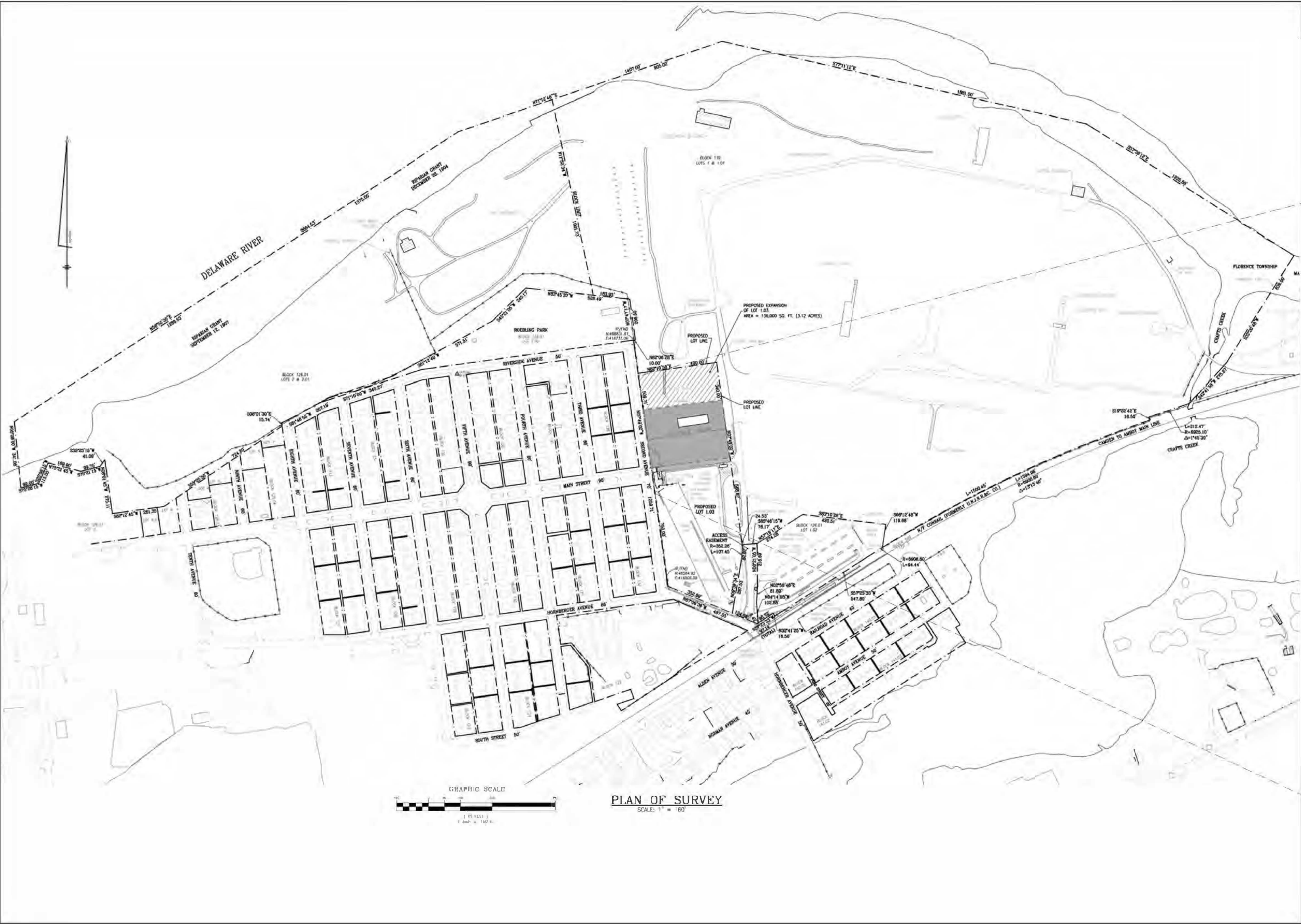


US Army Corps  
of Engineers®  
KANSAS CITY DISTRICT

# ROEBLING STEEL SUPERFUND SITE

## OPERABLE UNIT 4 - PRESTRETCHER/PRETENSIONING SYSTEM BUILDING

### 100% FINAL REMEDIAL DESIGN



SOLICITATION NO:  
CONTRACT NO: W912DQ-D-15-3011  
ISSUE DATE: SEPTEMBER, 2021

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REVISIONS

MARK	DATE	DESCRIPTION

DESIGNED BY: DB	DATE: 09/24/2021	PROJECT NO.: 60620247
DRAWN BY: JWWZ	CHECKED BY: MS	APPROVED BY: CH
U.S. ARMY CORPS OF ENGINEERS KANSAS CITY DISTRICT ECOM 100 RED SCHOOLHOUSE RD CHESTNUT RIDGE, NY		

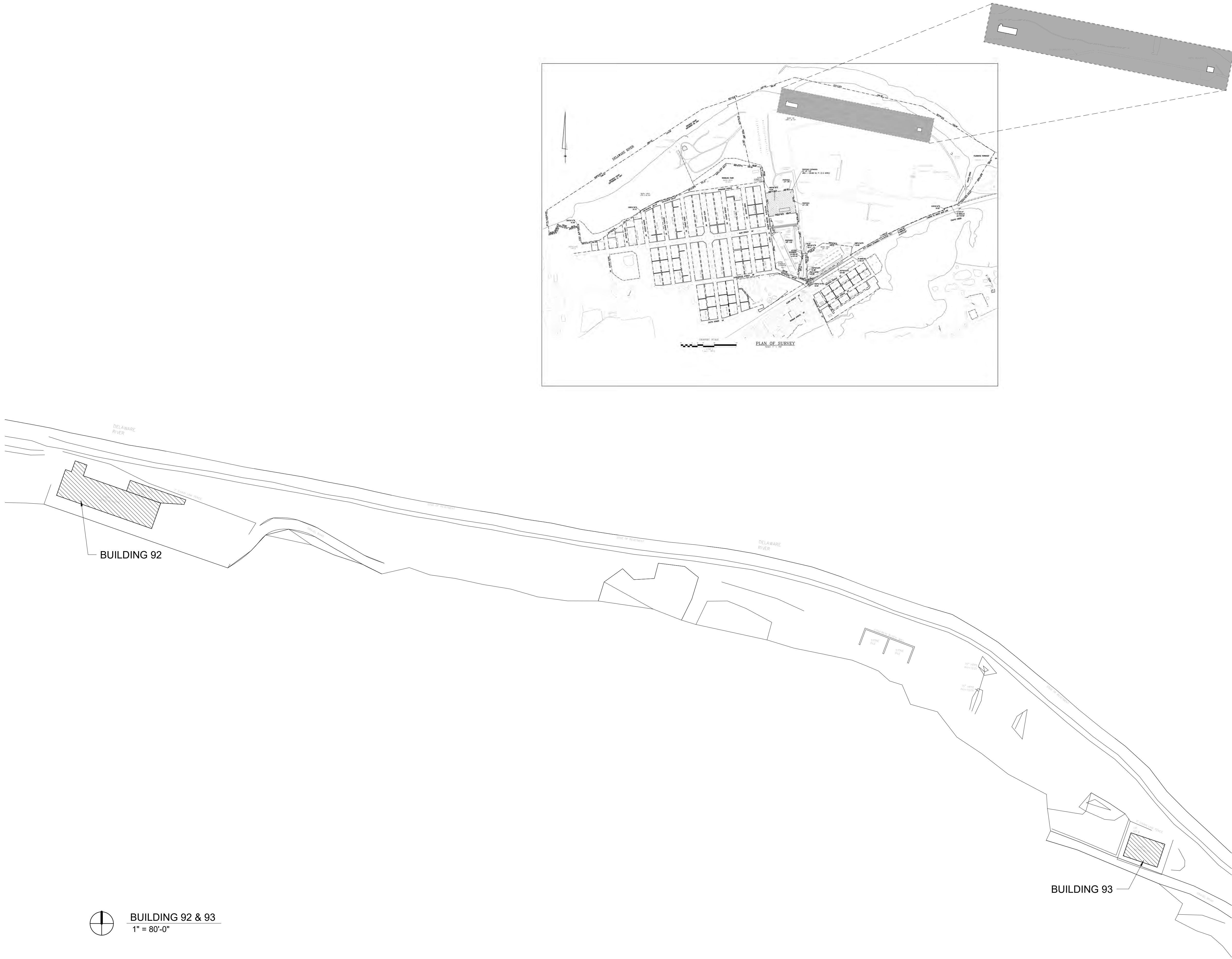
ROEBLING STEEL SUPERFUND SITE  
VILLAGE OF ROEBLING - FLORENCE TOWNSHIP, NJ  
OPERABLE UNIT 4 - PRESTRETCHER/PRETENSIONING SYSTEM BUILDING



SHEET ID  
G-001

VERIFY SCALE BAR IS ONE INCH ON ORIGINAL DRAWING

BUILDING 92 & 93  
1" = 80'-0"



## LEGEND



TO BE DEMOLISHED

## NOTES

1. CONTRACTOR TO PERFORM DEMOLITION IN ACCORDANCE WITH SPECIFICATION 02 41 00 DEMOLITION AND DECONSTRUCTION.
2. THE CONTRACTOR MUST PERFORM ALL DEMOLITION WORK IN ACCORDANCE WITH APPLICABLE RULES, REGULATIONS, CODES, AND ORDINANCES OF LOCAL, STATE, AND FEDERAL AUTHORITIES.
3. WHERE PUBLIC UTILITIES ARE INVOLVED, DEMOLITION SHALL BE PERFORMED IN COOPERATION WITH THE REQUIREMENTS OF THE UTILITY COMPANY HAVING JURISDICTION OVER THE WORK.
4. CONTRACTOR TO DETERMINE ALL DIMENSIONS, MATERIALS, AND CONDITIONS IN FIELD. NOTIFY DEPARTMENT OF THE ARMY, KANSAS CITY DISTRICT, CORPS OF ENGINEERS' REPRESENTATIVE IMMEDIATELY OF ANY MAJOR DISCREPANCIES FROM THAT INDICATED, DEPICTED, OR NOTED IN DRAWINGS AND SPECIFICATIONS.
5. ALL WORK TO BE PERFORMED IN IN ACCORDANCE WITH DIVISION 1 AND 2 SPECIFICATIONS TO IDENTIFY AND ADDRESS HAZARDS TO PERSONS AND PROPERTY, TO MINIMIZE INTERFERENCE WITH USE OF ADJACENT AREAS, UTILITIES AND STRUCTURES OR INTERRUPTION OF USE OF SUCH UTILITIES, AND TO PROVIDE FREE PASSAGE TO AND FROM SUCH ADJACENT AREAS OF STRUCTURES.
6. PROVIDE SAFEGUARDS, INCLUDING WARNING SIGNS, BARRICADES, TEMPORARY FENCES, WARNING LIGHTS, AND OTHER SIMILAR ITEMS THAT ARE REQUIRED FOR PROTECTION OF ALL PERSONNEL DURING DEMOLITION AND REMOVAL OPERATIONS IN ACCORDANCE WITH DIVISION 1 AND 2 SPECIFICATIONS.
7. THE LOCATION OF THE CONSTRUCTION SUPPORT ZONE, PLACEMENT OF TEMPORARY CONSTRUCTION TRAILERS AND STORAGE, AND USE OF DUMPSTERS, ETC. WILL BE APPROVED BY THE CONTRACTING OFFICER REPRESENTATIVE AND COORDINATED WITH EPA IN ACCORDANCE WITH DIV 1 AND 2 SPECIFICATIONS.
8. PROVIDE DUST AND DEBRIS CONTROL PER SPECIFICATION SECTION 02 41 00.
9. CONTRACTOR TO PROVIDE SECURITY TO THE SITE AND ALL SPACES INCLUDED IN THE SCOPE OF WORK FOR THE DURATION OF THE CONTRACT IN ACCORDANCE WITH DIV 1 AND 2 SPECIFICATIONS.
10. MATERIAL SHALL BE DISPOSED IN ACCORDANCE WITH FEDERAL, STATE, AND LOCAL LAWS, CODES, REGULATIONS AND IN ACCORDANCE WITH DIV 1 AND 2 SPECIFICATIONS. PROVIDE A MINIMUM OF 6" NEW TOPSOIL AND SEED CLEARED AREAS.



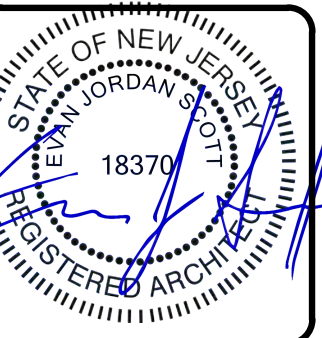
**US Army Corps  
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U.S. ARMY CORPS OF ENGINEERS KANSAS CITY DISTRICT	DESIGNED BY:	DB	DATE:	03/24/2021
	DRAWN BY:	JWJ /WZ	PROJECT NO.:	60520247
100 RED SCHOOLHOUSE RD CHESTNUT RIDGE, NY	CHECKED BY:	AH		
	APPROVED BY:	CH		

ROEBLING STEEL SUPERFUND SITE  
VILLAGE OF ROEBLING - FLORENCE TOWNSHIP, NJ  
OPERABLE UNIT 4 - BUILDING 92 AND 93 DEMO

## BUILDING 92 & 93 DEMO PLAN



SHEET ID

# D-100



SYMBOLS

	EXISTING STRUCTURE/BUILDING
	NEW STRUCTURE/BUILDING
	EXISTING SIDEWALK
	EXISTING BRICK PAVER PATH
	NEW SIDEWALK
	EXISTING RAILROAD
	EXISTING CURB
	BENCHMARK/ELEVATION MARKER
	SPOT SHOT ELEVATION
	EXISTING CONTOUR
	NEW CONTOUR
	EXISTING PIPING
	NEW SANITARY SEWER FORCEMAIN
	NEW POTABLE WATER MAIN
	EXISTING FENCE
	NEW FENCE
	PROPERTY LINE
	EXISTING FIRE HYDRANT
	NEW GRINDER PUMP
	ELECTRIC LINE
	LIGHT POLE
	TRANSFORMER
	AIR CONDITIONING UNIT
	HANDHOLE
	TEMPORARY SILT FENCE

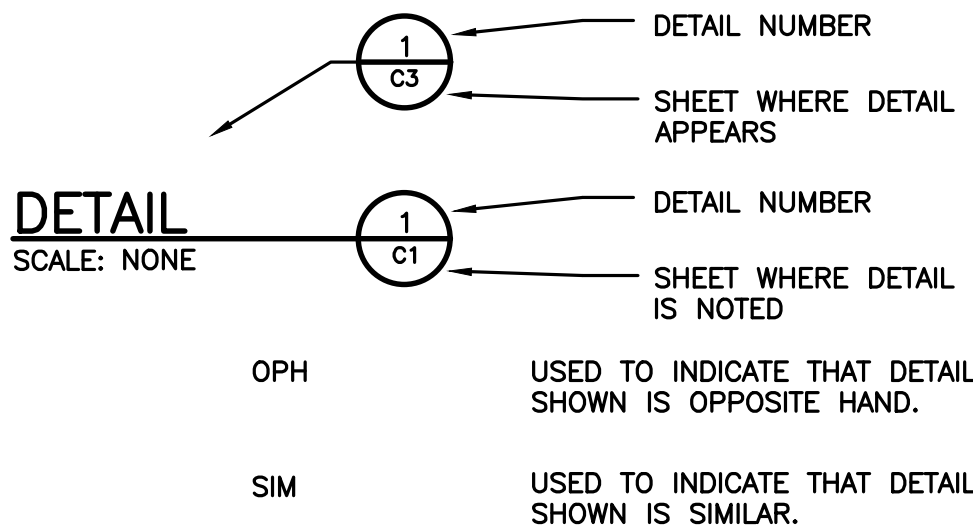
MATERIALS

	EARTH OR GRADE
	GRANULAR FILL (ROCK/GRAVEL)
	CONCRETE
	CMU (CONCRETE MASONRY UNIT)
	BRICK MASONRY
	GRATING
	GROUT FILL
	RIGID INSULATION

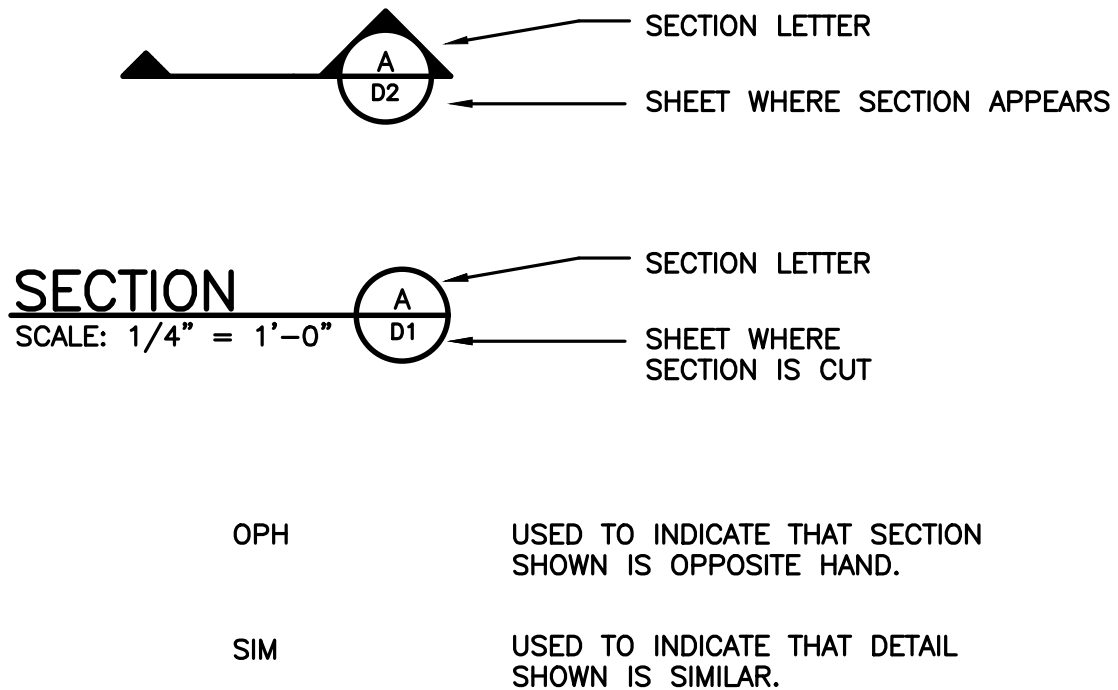
ACRONYM & ABBREVIATION

ACRONYM & ABBREVIATION	DESCRIPTION
AT	AT
ADA	AMERICAN'S WITH DISABILITIES ACT
CH	CHAPTER
CLR	CALCIUM, LIME AND RUST [REMOVER]
CY	CUBIC YARD
DIA	DIAMETER
ELEV	ELEVATION
EL	ELEVATION
EPA	ENVIRONMENTAL PROTECTION AGENCY
ETC	ETCETERA
FFE	FIRST FLOOR ELEVATION
FT	FOOT
H:V	HORIZONTAL: VERTICAL
IBC	INTERNATIONAL BUILDING CODE
INV	INVERT
MIN	MINIMUM
NAVD88	NORTH AMERICAN VERTICAL DATUM OF 1988
NJDEP	NEW JERSEY DEPARTMENT OF ENVIRONMENTAL PROTECTION
NJ	NEW JERSEY
NO.	NUMBER
PSIG	POUNDS PER SQUARE INCH (GAUGE)
PSI	POUNDS PER SQUARE INCH
PVC	POLYVINYL CHLORIDE
QA	QUALITY ASSESSMENT
QC	QUALITY CONTROL
ROW	RIGHT OF WAY
SCH	SCHEDULE
SESC	SOIL EROSION AND SEDIMENT CONTROL
SQ FT	SQUARE FEET
STA	STATION
TYP.	TYPICAL
V:H	VERTICAL: HORIZONTAL

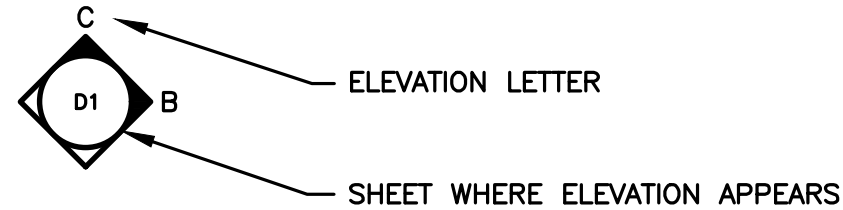
DETAIL REFERENCES



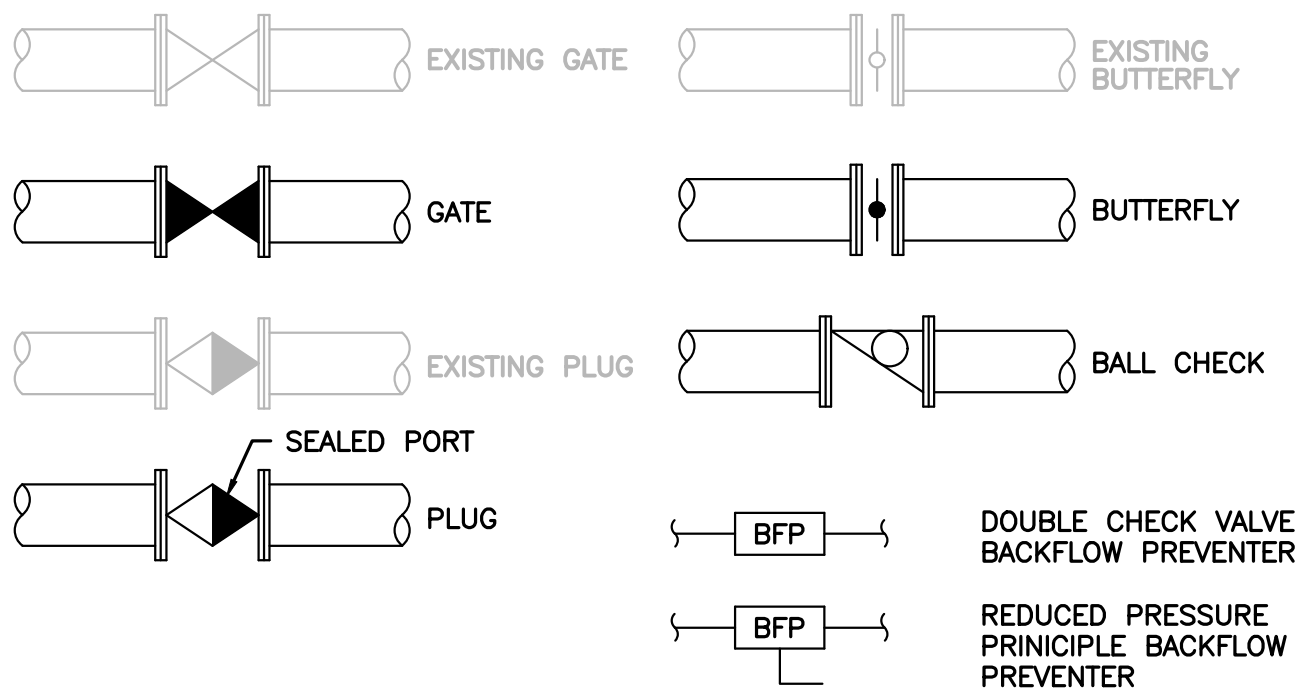
SECTION REFERENCES



ELEVATION REFERENCES



VALVES



IDENTIFIER

DESCRIPTION

BWW	BACKWASH WASTE
BYP	BYPASS
CLG	CHLORINE GAS
CLS	CHLORINE SOLUTION
CLV	CHLORINE VACUUM
DRN	DRAIN
FM	FORCE MAIN
FW	FINISHED WATER
FWS	FINISHED WATER SAMPLE
NGAS	NATURAL GAS
NPW	NON-POTABLE WATER
PHF	PHOSPHATE FEED
PHS	PHOSPHATE SOLUTION
PW	POTABLE WATER
RAW	RAW WATER
RWS	RAW WATER SAMPLE
SBS	SODIUM BICARBONATE SOLUTION
SD	STORM DRAIN
SPL	SAMPLE LINE
SSFM	SANITARY SEWER FORCE MAIN
SUC	SUCTION
VAC	VACUUM
VNT	VENT
W	WATER



US Army Corps of Engineers®

REVISIONS

MARK

DATE: 09/24/2021  
PROJECT NO.: 60620247  
DESIGNED BY: MA  
DRAWN BY: KP  
CHECKED BY: MA  
APPROVED BY: BS

U.S. ARMY CORPS OF ENGINEERS  
KANSAS CITY DISTRICT

AECOM  
100 RED SCHOOLHOUSE RD  
CHESTNUT RIDGE, NY

ROEBLING STEEL SUPERFUND SITE  
VILLAGE OF ROEBLING - FLORENCE TOWNSHIP, NJ  
OPERABLE UNIT 4 - PRESTRETCH/RETENSIONING SYSTEM BUILDING

NEW SITE AND UTILITY  
LEGEND AND ABBREVIATIONS



SHEET ID

C-000



COORDINATE WITH AECOM ON LATEST ISSUE OF DRAWINGS BEFORE COMMENCEMENT OF CONSTRUCTION

VERIFY SCALE BAR IS ONE INCH ON ORIGINAL DRAWING

September 28, 2021

6

5

4

3

2

1

SITE PLAN

GENERAL NOTES:

PERMITTING AND SITE PREPARATION:

- THE HORIZONTAL DATUM BASED ON NAD83. THE VERTICAL DATUM IS REFERENCED TO THE NORTH AMERICAN VERTICAL DATUM OF 1988 (NAVD88 ). ALL ELEVATIONS WERE BASED ON US ARMY CORPS OF ENGINEERS PLAN ENTITLED 'ROEBLING STEEL COMPANY SUPERFUND SITE MAIN GATE HOUSE AREA SOILS REMEDIATION DESIGN' DATED FEBRUARY 2005.
- BASEPLAN USED FOR THIS DRAWING IS REFERENCED TO THE FINAL AS-BUILT SURVEY, WHICH WAS PERFORMED IN THE FIELD BY B&B HI-TECH SOLUTIONS, LLC ON JANUARY 2008. FINAL GRADE TOPOGRAPHIC SHOTS TAKEN ON FROM 1/2008 TO 8/2008. SURVEY PERFORMED BY JOHN P. HOUWEN - PROFESSIONAL LAND SURVEYOR N.J. LICENSE NO. 33105.
- THE CONTRATOR SHALL PERFORM THEIR OWN BOUNDARY SURVEY TO CONFIRM THE PROPERTY LINE BOUNDS; ADDITIONALLY, BENCHMARKS TO BE USED FOR THIS WORK SHALL BE ESTABLISHED AND A PERMANENT CONTROL MONUMENT SHALL BE PROVIDED WITHIN THE PROPERTY.
- ALL WATER AND SANITARY SEWER UTILITY INSTALLATION SHALL BE IN ACCORDANCE WITH TOWNSHIP OF FLORENCE RULES, REGULATIONS, AND TECHNICAL SPECIFICATIONS FOR WATER DISTRIBUTION AND SANITARY SEWER SYSTEMS, OCT. 2006.
- A LANDSCAPING PLAN SHALL BE PREPARED BY THE CONTRACTOR'S LICENSED LANDSCAPE ARCHITECT. LANDSCAPING SHALL BE INTEGRATED INTO BUILDING ARRANGEMENTS, TOPOGRAPHY, PARKING AND BUFFERING REQUIREMENTS OF FLORENCE TOWNSHIP.
- THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE DESIGN OF SOIL EROSION AND SEDIMENT CONTROL (SESC) DURING AND POST CONSTRUCTION.
- OTHER PERMITS REQUIRED FOR THIS WORK INCLUDE THE FOLLOWING:
  - CONSTRUCTION PERMIT
  - MAJOR SITE PLAN APPLICATION
    - ZONING APPLICATION
    - LAND DEVELOPMENT APPLICATION
- THE CONTRACTOR SHALL PROVIDE A WORK PLAN OUTLINING EARTHWORK AND UTILITY INSTALLATION ACTIVITIES, STAGING OR MATERIALS/EQUIPMENT AND SEQUENCING OF WORK.
- STAGING, RELOCATION, AND HANDLING OF EQUIPMENT AND ARTIFACTS SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR WHO IS SPECIALIZED IN PERFORMING THAT SCOPE.

UTILITIES:

- THE CONTRACTOR SHALL CONFIRM EXISTING UTILITY ALIGNMENTS, (WATER, ELECTRIC, GAS, DRAIN, SANITARY AND STORMWATER, TELECOMMUNICATIONS, ETC.) BEFORE PLANNING ANY INSTALLATION OVER THESE UTILITIES AND BEFORE PERFORMING EXCAVATIONS AND BACKFILLING WITHIN THE VICINITY. CONTRACTOR SHALL COORDINATE WITH THE ENGINEER AND AGREE ON THE APPROPRIATE EXTENT OF EXPLORATION.
- ELECTRICAL UTILITY TIE-IN TO THE GRID SHALL BE COORDINATED WITH THE TOWNSHIP AND THE RESPECTIVE PUBLIC UTILITY OWNER.
- THE NEW PRESTRETCHER BUILDING WILL NOT BE SERVICED BY GAS UTILITIES.
- ROOF DRAIN PIPES SHALL HAVE UNIFORM SLOPES OF AT LEAST 1/8" PER FOOT.
- CLEANOUTS FOR THE ROOF DRAINS SHALL BE INSTALLED NEAR EVERY CONNECTION AND MUST BE READILY ACCESSIBLE FOR REGULAR MAINTENANCE.
- THE CONTRACTOR SHALL TEST NEARBY FIRE HYDRANTS AND COORDINATE WITH THE FLORENCE TOWNSHIP BEFORE INCORPORATING THE HYDRANT IN THE NEW BUILDING'S FIRE SUPPRESSION PLAN.
- CONTRACTOR SHALL INSPECT ALL EXISTING STORM DRAINAGE UTILITIES ON SITE AND ADVISE THE CONSTRUCTION MANAGER OF ANY DEFICIENCIES.

IMPERVIOUS COVER:

- EXTERIOR CONCRETE SLABS AND WALKWAY SHALL BE INSTALLED USING CONCRETE WITH A MINIMUM COMPRESSIVE STRENGTH OF 3,000 PSI AT 27 DAYS OF CURING. THE CONTRACTOR SHALL PROVIDE THE MIX DESIGN AND MILL CERTIFICATION.
- ALL WALKWAYS AND TRANSITIONS SHALL BE ADA-COMPLIANT.
- LANDSCAPING:
  - LANDSCAPE EDGING SHALL BE REQUIRED FOR ALL WALKWAYS TO PROTECT FROM EROSION.
  - ALL LANDSCAPING SHALL BE DESIGNED BY THE CONTRACTOR, FOLLOWING THE LOCAL AND STATE GUIDELINES AND ALIGN WITH THE CONTRACTOR'S SESC PLAN.
  - VEGETATION FOR THE DETENTION POND AND THE FILTER ZONE AROUND THE POND SHALL FOLLOW THE GUIDELINES IN SHEET C-101.

1" = 50'



KEY PLAN

NTS

CONSTRUCTION NOTES

- CONSTRUCT NEW CONCRETE WALKWAY; (DET. 1 & 2, C-101); AREA = 2,201 SQ FT; LENGTH = 170 FT; SLOPE = 2.0%. EXISTING BELGIAN BLOCK ROAD SHALL NOT BE MODIFIED. CONTRACTOR SHALL BE RESPONSIBLE FOR DAMAGES.
- OUTSIDE FLOOR SLAB (DET. 3, C-101); AREA = 6,448.6 SQ FT; TOP OF SLAB ELEVATION = EL+30; BOTTOM OF SLAB = EL+29.5; SLOPE AWAY FROM FACE OF BUILDING @ 1/8" per 1'-0" PER ARCHITECTURE DRAWINGS.
- NEW PRESTRETCHER BUILDING FOOTPRINT AREA = 6798.6 SQ. FT; FIRST FLOOR ELEVATION = EL+30; ASSEMBLY GROUP A-3.
- (BEGIN) RELOCATION OF EXISTING CHAIN LINK FENCE.
- (END) RELOCATION OF EXISTING CHAIN LINK FENCE.
- INSTALL NEW CHAIN LINK FENCE. MATCH EXISTING (DET. 15, C-103).
- CONTRACTOR SHALL COORDINATE SANITARY SEWER FORCEMAIN TIE-IN AND ALL OTHER WORK IN PUBLIC ROW WITH FLORENCE TOWNSHIP (DET. 11, C103). VERIFY IN FIELD.
- INSTALL ±500 LF, 2" PVC SANITARY SEWER FORCEMAIN.
- INSTALL ZOELLER 922-0068 PREPACKAGED GRINDER PUMP ASSEMBLY OR APPROVED EQUAL. INSTALL PER MANUFACTURER'S SPECIFICATIONS. CONTRACTOR SHALL COORDINATE WITH MANUFACTURER FOR DESIGN AND PERMITTING.
- INSTALL 4" SANITARY SEWER SERVICE FROM BUILDING. SEE PLUMBING PLANS FOR INVERTS.
- CONFIRM LOCATION AND DEPTH OF EXISTING PIPE BEFORE GRADING.
- INSTALL ZURN Z706 6" TRENCH DRAIN (TYP., OR APPROVED EQUAL). INSTALL PER MANUFACTURER'S SPECIFICATIONS.
- INSTALL 8", NON-PERFORATED ROOF DRAIN.
- CONSTRUCT RETAINING WALL; CONSTRUCT PER ARCHITECTURAL DRAWINGS; SEE A-400 IN ARCHITECTURAL PLANS.
- INSTALL NEW INFILTRATION/ DETENTION BASIN (DET. 4, C-101); TOTAL VOLUME = 142.6 CY; BOTTOM OF POND = EL+23.5
- CONSTRUCT RIPRAP-LINED EMERGENCY SPILLYWAY (DET. 7, C102).
- INSTALL 8" PVC @ 0.5% MIN. (TYP.)
- CONSTRUCT RIPRAP APRON (DET. 5, C-101); 8" PVC INV. OUT = EL+24.
- CONTRACTOR SHALL COORDINATE WATER MAIN TIE-IN AND ALL OTHER WORK IN PUBLIC ROW WITH FLORENCE TOWNSHIP. CONNECT TO EXISTING WATER MAIN USING TAPPING TEE. CONTRACTOR SHALL VERIFY EXISTING MAIN SIZE AND SIZE TEE ACCORDINGLY (DET. 13, C103).
- INSTALL 1-1/4" DOMESTIC WATER SERVICE. CONTRACTOR SHALL COORDINATE WITH FLORENCE TOWNSHIP.
- TEST FIRE HYDRANT BEFORE INCORPORATING IN FIRE SUPPRESSION PLAN (CONFIRMED OPERATIONAL AS OF 2021-05-17).
- INSTALL UNDERGROUND ELECTRIC DUCT BANKS, LIGHT POLES AND TRANSFORMER PER ELECTRICAL PLANS (E-101 & E-105).
- INSTALL SILT FENCE (DET. 8; C-102).



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REVISIONS

MARK	DATE	DESCRIPTION

DESIGNED BY: MA	DATE: 09/24/2021	PROJECT NO.: 60620247	CHECKED BY: MA	APPROVED BY: BS
DRAWN BY: KP				
U.S. ARMY CORPS OF ENGINEERS KANSAS CITY DISTRICT			AECOM 100 RED SCHOOLHOUSE RD CHESTNUT RIDGE, NY	

ROEBLING STEEL SUPERFUND SITE  
VILLAGE OF ROEBLING - FLORENCE TOWNSHIP, NJ  
OPERABLE UNIT 4 - PRESTRETCHER/PREINSONING SYSTEM BUILDING

NEW SITE AND UTILITY PLAN



SHEET ID

C-100



COORDINATE WITH AECOM ON LATEST ISSUE OF DRAWINGS BEFORE COMMENCEMENT OF CONSTRUCTION

VERIFY SCALE BAR IS ONE INCH ON ORIGINAL DRAWING

September 24, 2021

1

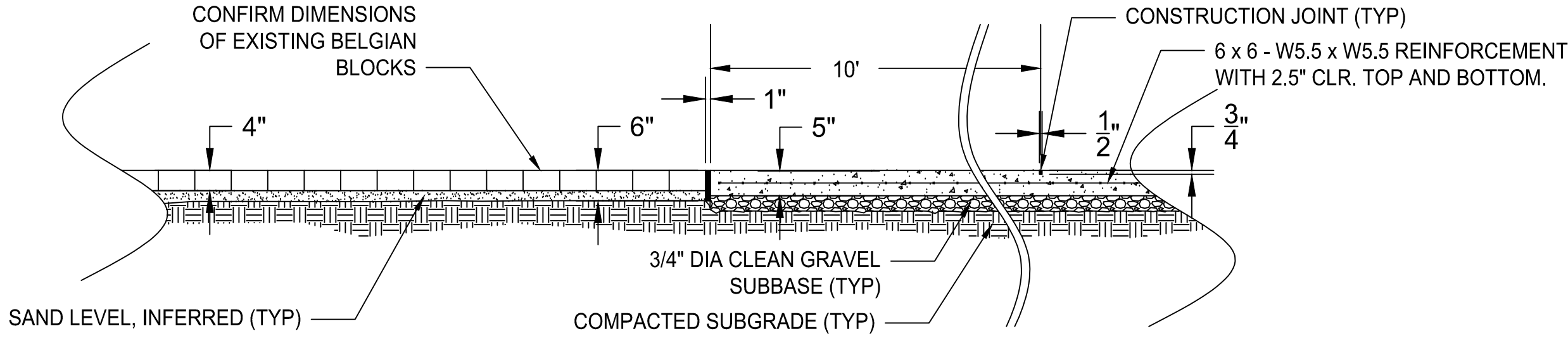
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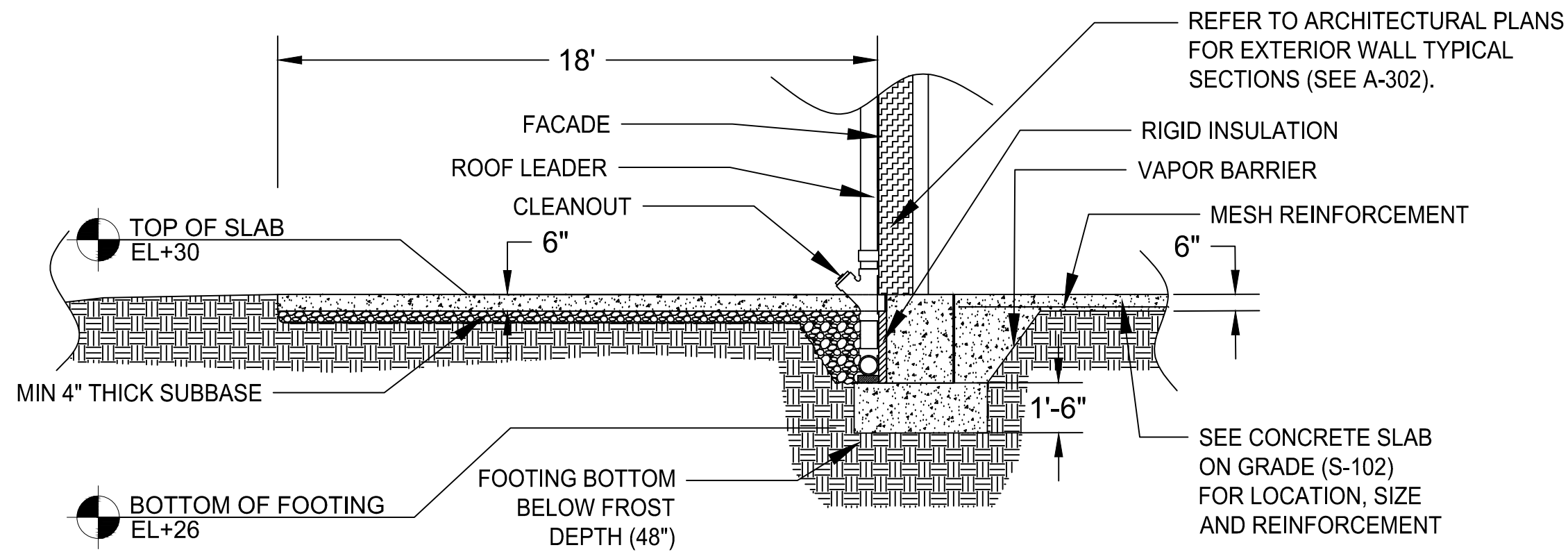
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1 WALKWAY TRANSITION SECTION  
C-101

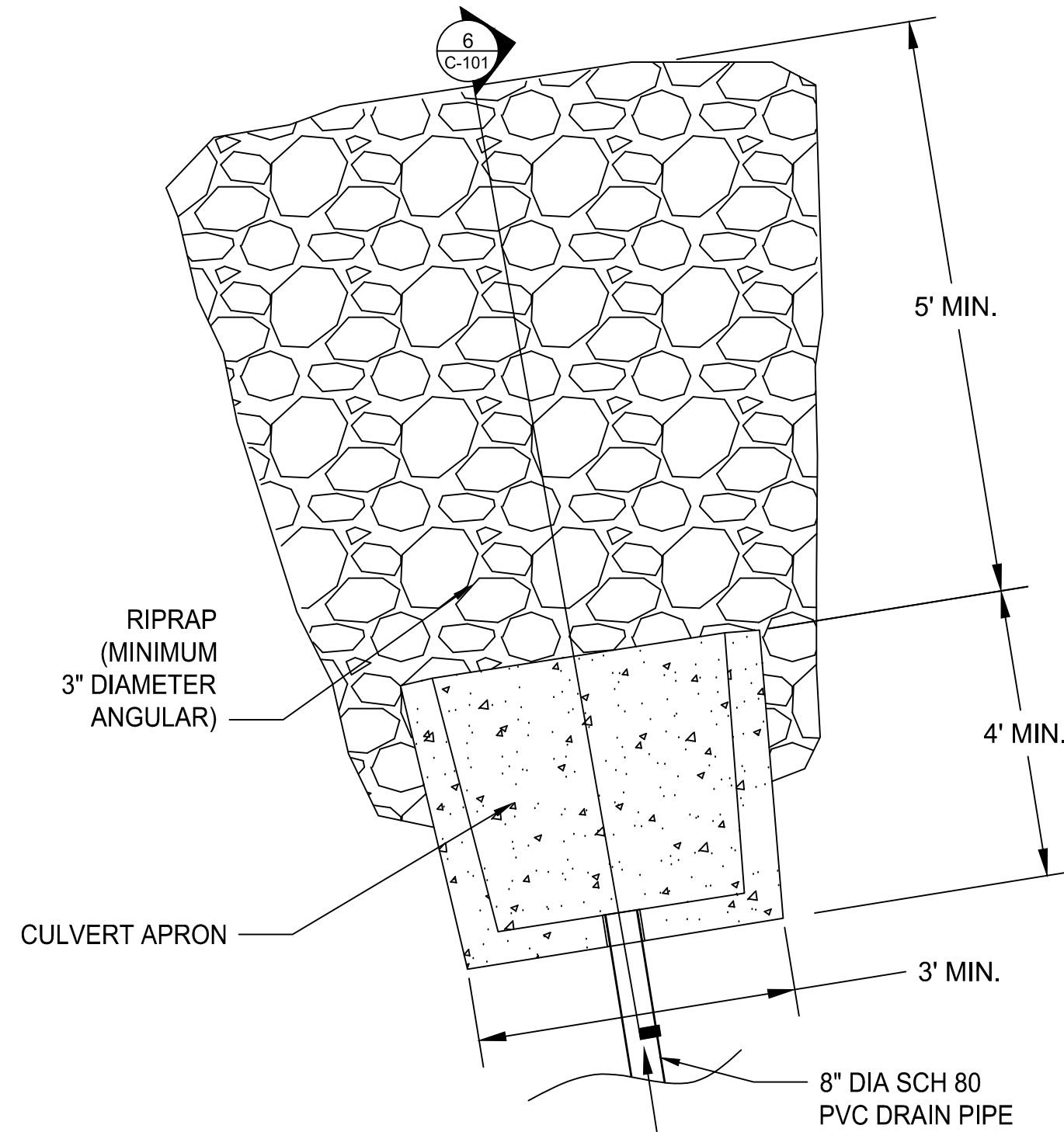
1. THE CONTRACTOR SHALL PROVIDE PROTECTION OF THE BELGIAN BLOCK ROAD DURING CONSTRUCTION.
2. THE TRAVELED PORTION OF THE BELGIAN BLOCK ROAD FROM THE ENTRANCE TO THE NEW CONCRETE WALKWAY SHALL BE OVERLAIN WITH A DEPLOYABLE, ADA-COMPLIANT SMOOTH MAT AND WILL MATCH THE GRADE OF THE NEW WALKWAY AT THE TRANSITION.
3. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE RESTORATION OF BELGIAN BLOCKS THAT WERE DISTURBED OR DAMAGED DURING THE INSTALLATION OF THE WALKWAY.
4. CONSTRUCTION JOINTS SHALL BE INSTALLED AT A MAXIMUM SPACING OF 10-FT LENGTH SECTION OF CONCRETE PAVEMENT IN ANY DIRECTION.
5. ALL CONSTRUCTION JOINTS SHALL CONTAIN ABOUT 1/2" WIDE CONSTRUCTION JOINTS FILLED WITH BITUMINOUS OR ELASTOMERIC TYPE FILLER.

NTS



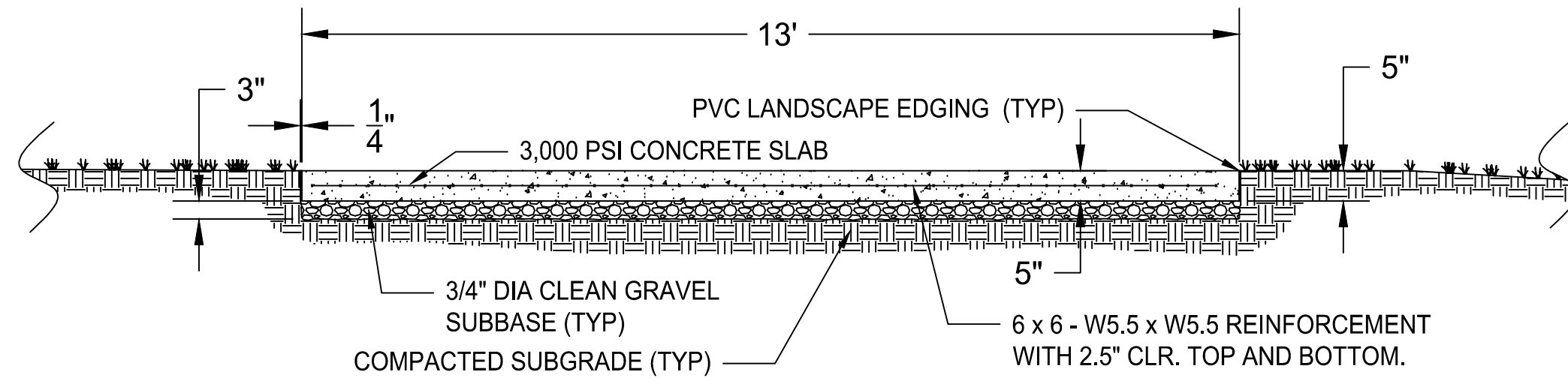
3 NEW CONCRETE SLAB AND ROOF DRAIN SECTION  
C-101

NTS



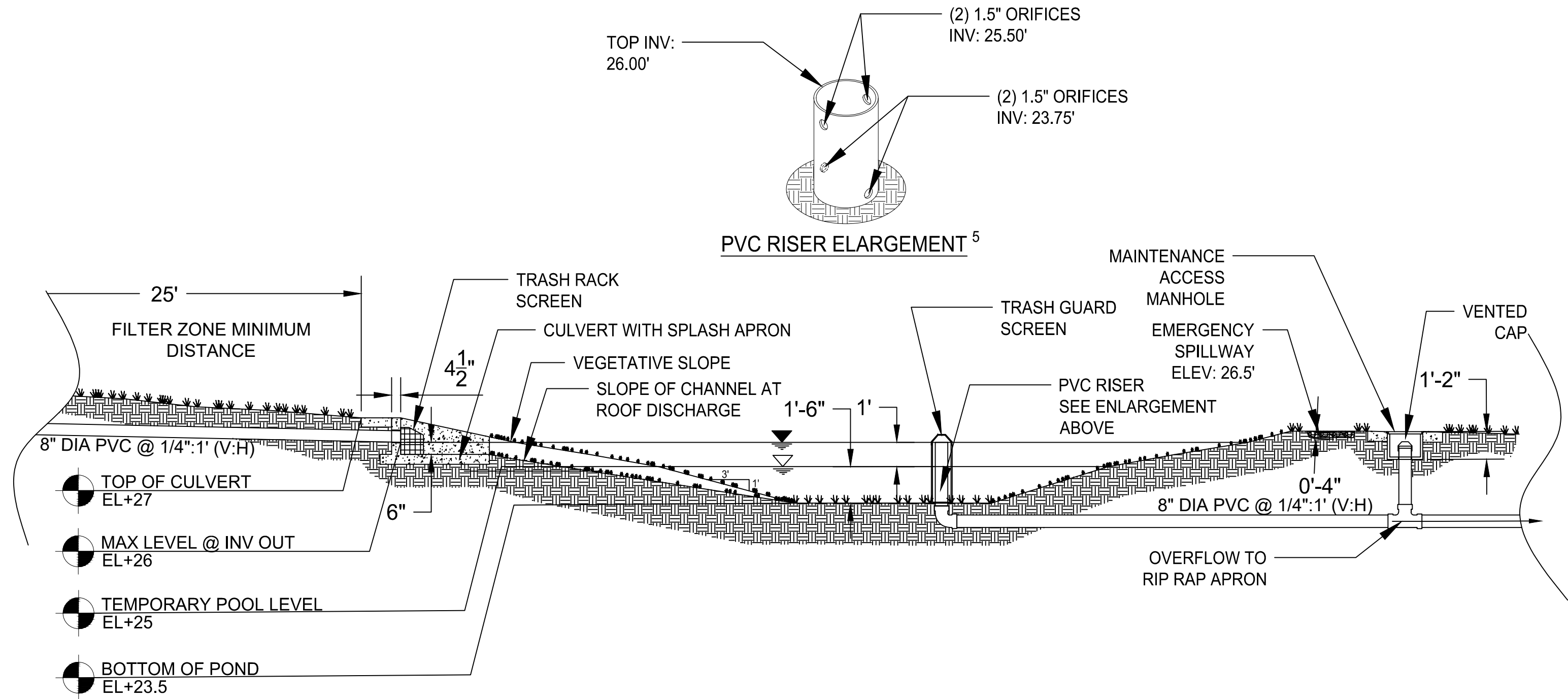
5 TYPICAL STABILIZED OUTLET DETAIL  
C-101

NTS



2 WALKWAY TYPICAL SECTION  
C-101

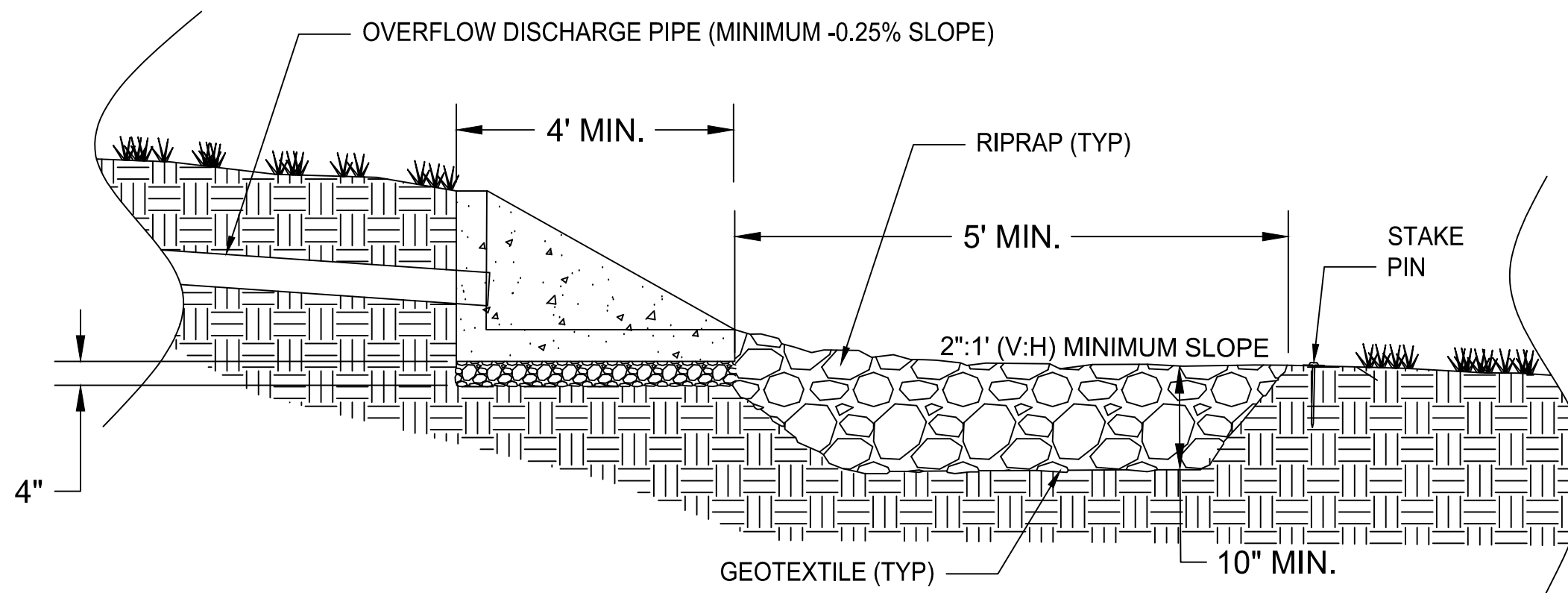
NTS



4 DETENTION POND AND OVERFLOW TYPICAL SECTION  
C-101

NTS

1. FILTER ZONE SHALL CONSIST OF VEGETATIVE STRIP OF THE APPROPRIATE GRASS SPECIES (SUCH AS KENTUCKY BLUEGRASS, TURF-TYPE TALL FESCUE); THIS BUFFER ZONE SHALL BE MAINTAINED, INCLUDING SEEDING, MOWING, IRRIGATING AND FERTILIZING THE STRIP.
2. POND-ZONE VEGETATION WILL INCLUDE AT LEAST FOUR TYPES AND MAY INCLUDE WATER KNOTWEED, PICKEREL WEED, YELLOW/WHITE WATER LILY, WATER WILLOW). PLANT SPACING, PLANTING GUIDELINES AND OTHER SPECIFIC POST-PLANTING CARE AND MAINTENANCE PLAN SHALL BE PROVIDED BY THE CONTRACTOR
3. SEDIMENTATION SHALL BE REMOVED AS SPECIFIED IN THE CONTRACTOR'S SESC MAINTENANCE PLAN; A SEDIMENT GAUGE SHALL BE INSTALLED IN AN ACCESSIBLE LOCATION FOR MONITORING.
4. DETENTION BASIN IS DESIGNED TO BE AN INFILTRATION BASIN AND SIDE SLOPES SHALL NOT EXCEED 1:3 (V:H).
5. TRASH SCREEN NOT SHOWN ON ENLARGEMENT FOR CLARITY.



6 TYPICAL STABILIZED OUTLET DETAIL  
C-101

NTS

GENERAL NOTE: SEE TYPICAL  
DETAILS 5 AND 6 FOR RESTORATION  
OF EXISTING SOIL CAP ON C-300



US Army Corps  
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REVISIONS

MARK	DATE	DESCRIPTION

DESIGNED BY: MA	DATE: 09/24/2021	PROJECT NO.: 60620247	CHECKED BY: MA	APPROVED BY: BS
DRAWN BY: KP				
U.S. ARMY CORPS OF ENGINEERS KANSAS CITY DISTRICT			AECOM 100 RED SCHOOLHOUSE RD CHESTNUT RIDGE, NY	

ROEBLING STEEL SUPERFUND SITE  
VILLAGE OF ROEBLING - FLORENCE TOWNSHIP, NJ  
OPERABLE UNIT 4 - PRESTRETCHED/PRETENSIONING SYSTEM BUILDING  
**NEW SITE AND UTILITY  
PLAN DETAILS AND SECTIONS**



SHEET ID  
**C-101**



COORDINATE WITH AECOM ON LATEST ISSUE OF DRAWINGS BEFORE COMMENCEMENT OF CONSTRUCTION

VERIFY SCALE BAR IS ONE INCH ON ORIGINAL DRAWING

1

2

3

4

5

6

September 24, 2021

1

2

3

4

5

6

EROSION AND SEDIMENT CONTROL NOTES

1.

THE CONTRACTOR IS RESPONSIBLE FOR LOCATING ALL UNDERGROUND UTILITIES PRIOR TO CONSTRUCTION. CONTRACTOR SHALL BE AWARE OF EXISTING UTILITY LINES DURING PIPE LINE INSTALLATION. CONTRACTOR SHALL NOTIFY UTILITY COMPANIES FOR LOCATION OF OTHER UTILITIES NOT SHOWN ON PLAN. CALL 811 FOR UNDERGROUND UTILITY LINES LOCATION.

2.

PROMPTLY INFORM THE ENGINEER OF ANY ERROR OR DISCREPANCIES DISCOVERED IN THE DRAWINGS OR SPECIFICATIONS OR CONFLICTS BETWEEN THE DRAWING AND SPECIFICATIONS IN ORDER FOR CORRECTIONS TO BE MADE.

3.

STABILIZATION MEASURES SHALL BE INITIATED AS SOON AS PRACTICABLE IN PORTIONS OF THE SITE WHERE CONSTRUCTION ACTIVITIES HAVE TEMPORARILY OR PERMANENTLY CEASED, BUT IN NO CASE MORE THAN FOURTEEN (14) DAYS AFTER WORK HAS CEASED, EXCEPT AS STATED BELOW.

A.

WHERE STABILIZATION BY THE 14TH DAY IS PRECLUDED BY SNOW COVER OR FROZEN GROUND CONDITIONS STABILIZATION MEASURES MUST BE INITIATED AS SOON AS PRACTICABLE.

B.

WHERE CONSTRUCTION ACTIVITY ON A PORTION OF THE SITE IS TEMPORARILY CEASED, & EARTH-DISTURBING ACTIVITIES WILL BE RESUMED WITHIN 14 DAYS, TEMPORARY STABILIZATION MEASURES DO NOT HAVE TO BE INITIATED ON THAT PORTION OF THE SITE.

2.

ALL SEDIMENT & EROSION CONTROL DEVICES SHALL BE INSPECTED ONCE EVERY CALENDAR WEEK. IF PERIODIC INSPECTION OR OTHER INFORMATION INDICATES THAT A BMP HAS BEEN INAPPROPRIATELY OR INCORRECTLY INSTALLED, THE PERMITTEE MUST ADDRESS THE NECESSARY REPLACEMENT OR MODIFICATION REQUIRED TO CORRECT THE BMP WITHIN 48 HOURS OF IDENTIFICATION.

3.

PROVIDE SILT FENCE AND/OR OTHER CONTROL DEVICES, AS MAY BE REQUIRED, TO CONTROL SOIL EROSION DURING UTILITY CONSTRUCTION. ALL DISTURBED AREAS SHALL BE CLEANED, GRADED, AND STABILIZED WITH GRASSING IMMEDIATELY AFTER THE UTILITY INSTALLATION. FILL, COVER, AND TEMPORARY SEEDING AT THE END OF EACH DAY ARE RECOMMENDED. IF WATER IS ENCOUNTERED WHILE TRENCHING, THE WATER SHOULD BE FILTERED TO REMOVE ANY SEDIMENTS BEFORE BEING PUMPED BACK INTO ANY WATERS OF THE STATE.

4.

ALL EROSION CONTROL DEVICES SHALL BE PROPERLY MAINTAINED DURING ALL PHASES OF CONSTRUCTION UNTIL THE COMPLETION OF ALL CONSTRUCTION ACTIVITIES & ALL DISTURBED AREAS HAVE BEEN STABILIZED. ADDITIONAL CONTROL DEVICES MAY BE REQUIRED DURING CONSTRUCTION IN ORDER TO CONTROL EROSION AND/OR OFFSITE SEDIMENTATION. ALL TEMPORARY CONTROL DEVICES SHALL BE REMOVED ONCE CONSTRUCTION IS COMPLETE AND THE SITE IS STABILIZED.

5.

THE CONTRACTOR MUST TAKE NECESSARY ACTION TO MINIMIZE THE TRACKING OF MUD ONTO PAVED ROADWAY(S) FROM CONSTRUCTION AREAS & THE GENERATION OF DUST. THE CONTRACTOR SHALL DAILY REMOVE MUD/SOIL FROM PAVEMENT, AS MAY BE REQUIRED.

6.

TEMPORARY DIVERSION BERMS AND/OR DITCHES WILL BE PROVIDED AS NEEDED DURING CONSTRUCTION TO PROTECT WORK AREAS FROM UPSLOPE RUNOFF AND/OR TO DIVERT SEDIMENT-LADEN WATER TO APPROPRIATE TRAPS OR STABLE OUTLETS.

7.

LITTER, CONSTRUCTION DEBRIS, OILS, FUELS, & BUILDING PRODUCTS WITH SIGNIFICANT POTENTIAL FOR IMPACT (SUCH AS STOCKPILES OF FRESHLY TREATED LUMBER) & CONSTRUCTION CHEMICALS THAT COULD BE EXPOSED TO STORM WATER MUST BE PREVENTED FROM BECOMING A POLLUTANT SOURCE IN STORM WATER DISCHARGES.

8.

A COPY OF THE SWPPP, INSPECTION RECORDS & RAINFALL DATA MUST BE RETAINED AT THE CONSTRUCTION SITE OR A NEARBY LOCATION EASILY ACCESSIBLE DURING NORMAL BUSINESS HOURS, FROM THE DATE OF COMMENCEMENT OF CONSTRUCTION ACTIVITIES TO THE DATE THAT FINAL STABILIZATION IS REACHED.

9.

INITIATE STABILIZATION MEASURES ON ANY EXPOSED STEEP SLOPE (3H:1V OR GREATER) WHERE LAND-DISTURBING ACTIVITIES HAVE PERMANENTLY OR TEMPORARILY CEASED, & WILL NOT RESUME FOR A PERIOD OF 7 CALENDAR DAYS.

10.

MINIMIZE SOIL COMPACTION &, UNLESS INFEASIBLE, PRESERVE TOPSOIL.

11.

MINIMIZE THE DISCHARGE OF POLLUTANTS FROM EQUIPMENT & VEHICLE WASHING, WHEEL WASH WATER & OTHER WASH WATERS. WASH WATERS MUST BE TREATED IN A SEDIMENT BASIN OR ALTERNATIVE CONTROL THAT PROVIDES EQUIVALENT OR BETTER TREATMENT PRIOR TO DISCHARGE.

12.

MINIMIZE THE DISCHARGE OF POLLUTANTS FROM DEWATERING OF TRENCHES & EXCAVATED AREAS. THESE DISCHARGES ARE TO BE ROUTED THROUGH APPROPRIATE BMPS (SEDIMENT BASIN, FILTER BAG, ETC.)

13.

THE FOLLOWING DISCHARGES FROM SITES ARE PROHIBITED:

A.

WASTEWATER FROM WASHOUT OF CONCRETE, UNLESS MANAGED BY APPROPRIATE CONTROL;

B.

WASTEWATER FROM WASHOUT/CLEANOUT OF STUCCO, PAINT, FORM RELEASE OILS, CURING COMPOUNDS & OTHER CONSTRUCTION MATERIALS;

C.

FUELS, OILS, OR OTHER POLLUTANTS USED IN VEHICLE & EQUIPMENT OPERATION & MAINTENANCE;

D.

SOAPS OR SOLVENTS USED IN VEHICLE & EQUIPMENT WASHING

17.

AFTER CONSTRUCTION ACTIVITIES BEGIN, INSPECTIONS MUST BE CONDUCTED AT A MINIMUM OF AT LEAST ONCE EVERY CALENDAR WEEK & MUST BE CONDUCTED UNTIL FINAL STABILIZATION IS REACHED ON ALL AREAS OF THE CONSTRUCTION SITE.

18.

IF EXISTING BMPS NEED TO BE MODIFIED OR IF ADDITIONAL BMPS ARE NECESSARY TO COMPLY WITH THE REQUIREMENTS OF THIS PERMIT AND/OR NJ'S WATER QUALITY STANDARDS, IMPLEMENTATION MUST BE COMPLETED BEFORE THE NEXT STORM EVENT WHENEVER PRACTICABLE. IF IMPLEMENTATION IS IMPRACTICABLE, THE SITUATION MUST BE DOCUMENTED IN THE SWPPP AND ALTERNATIVE BMPS MUST BE IMPLEMENTED AS SOON AS REASONABLY POSSIBLE.

3

1

10'

3" DIA. RIPRAP

WOVEN GEOTEXTILE FABRIC

TOP OF DAM = 27.00'

BOTTOM ELEV. = 26.50'

7

C-102

EMERGENCY OVERFLOW SPILLWAY AT BASIN

NTS

1. CONTRACTOR TO INSTALL FABRIC AND RIPRAP ON FACE OF SLOPE AND BACK SIDE OF SPILLWAY SLOPE COMPLETELY.

4'-0"

2.5' MAX.

NETTING

OAK POST STAKES (2" X 2" NOMINAL) SHALL BE SPACED AT 6'-0" ON CENTER

FILTER FABRIC (100 - 120 LBS, ON GRAB TENSIL STRENGTH)

TOE IN (4" X 4" TRENCH ALONG LINE OF POSTS

8

C-102

SILT FENCE

NTS

1. REMOVE EROSION FROM SILT FENCE WHEN IT RISES TO ONE HALF HEIGHT OF FENCE AND REPLACE WHERE EROSION HAS OCCURRED.

2. SILT FENCE TO BE SILT-LOK 24-100 MFD BY JDR ENTERPRIZES, INC. OR APPROVED EQUAL.

10' MIN

VARIES 10' MIN.

B

STAKE (TYP.)

STAPLES ⅝" DIA. 4" STAPLE (2 PER BALE)

NATIVE MATERIAL (OPTIONAL)

WOOD OR METAL STAKES (2 PER BALE)

STRAW BALE

BINDING WIRE

PLAN

TYPE "ABOVE GRADE" WITH STRAW BALES

SECTION B-B

LETTERS A MINIMUM OF 5" IN HEIGHT

CONCRETE WASHOUT

CONCRETE WASHOUT

SIGN DETAIL

10

C-102

STRAW BALE BARRIER CONCRETE WASHOUT

NTS

1. ACTUAL LAYOUT DETERMINED IN FIELD.

2. INSTALL CONCRETE WASHOUT SIGN (24" X 24", MINIMUM) WITHIN 30' OF THE TEMPORARY CONCRETE WASHOUT FACILITY.

3. TEMPORARY WASHOUT AREA MUST BE AT LEAST 50' FROM A STORM DRAIN, CREEK BANK OR PERIMETER CONTROL.

4. CLEAN OUT CONCRETE WASHOUT AREA WHEN 50% FULL

5. THE KEY TO FUNCTIONAL CONCRETE WASHOUTS IS WEEKLY INSPECTIONS, ROUTINE MAINTENANCE, AND REGULAR CLEANOUT.

6. SILT FENCE SAHLL BE INSTALLED AROUND PERIMETER OF CONCRETE WASHOUT AREA EXCEPT FOR THE SIDE UTILIZED FOR ACCESSING THE WASHOUT.

7. A ROCK CONSTRUCTION ENTRANCE MAY BE NECESSARY ALONG ONE SIDE OF THE WASHOUT TO PROVIDE VEHICLE ACCESS.

6" MINIMUM CRUSHED STONE (PROVIDE EROSION CONTROL FILTER FABRIC UNDER AGGREGATE)

R20' MIN

100' MINIMUM

24'-0" MIN

9

C-102

CONSTRUCTION ENTRANCE/ EXIT

NTS

GENERAL NOTE: SEE TYPICAL DETAILS 5 AND 6 FOR RESTORATION OF EXISTING SOIL CAP ON C-300

US Army Corps of Engineers®

REVISIONS

DESIGNED BY: MA  
DRAWN BY: KP  
CHECKED BY: MA  
APPROVED BY: BS

DATE: 09/24/2021  
PROJECT NO.: 60620247

U.S. ARMY CORPS OF ENGINEERS  
KANSAS CITY DISTRICT

AECOM  
100 RED SCHOOLHOUSE RD  
CHESTNUT RIDGE, NY

ROEBLING STEEL SUPERFUND SITE  
VILLAGE OF ROEBLING - FLORENCE TOWNSHIP, NJ  
OPERABLE UNIT 4 - PRESTRETCHER/PREINSONING SYSTEM BUILDING  
NEW SITE AND UTILITY  
PLAN SEDIMENT AND STORMWATER  
CONTROL NOTES AND DETAILS

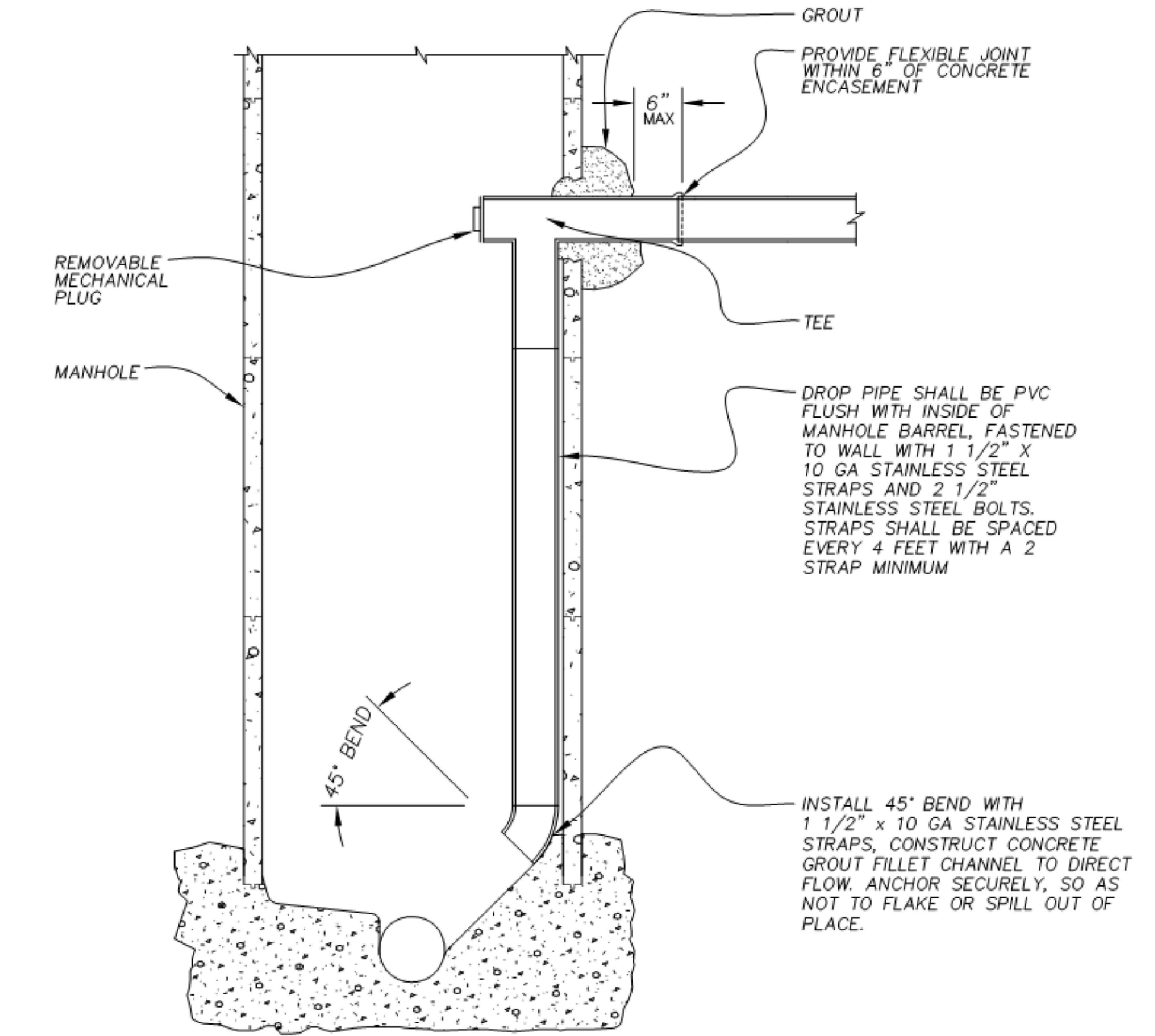
STATE OF NEW JERSEY  
BEN SINGER  
No. 24GE05421500  
Professional Engineer  
09/24/2021

SHEET ID  
C-102

811  
Know what's below.  
Call before you dig.

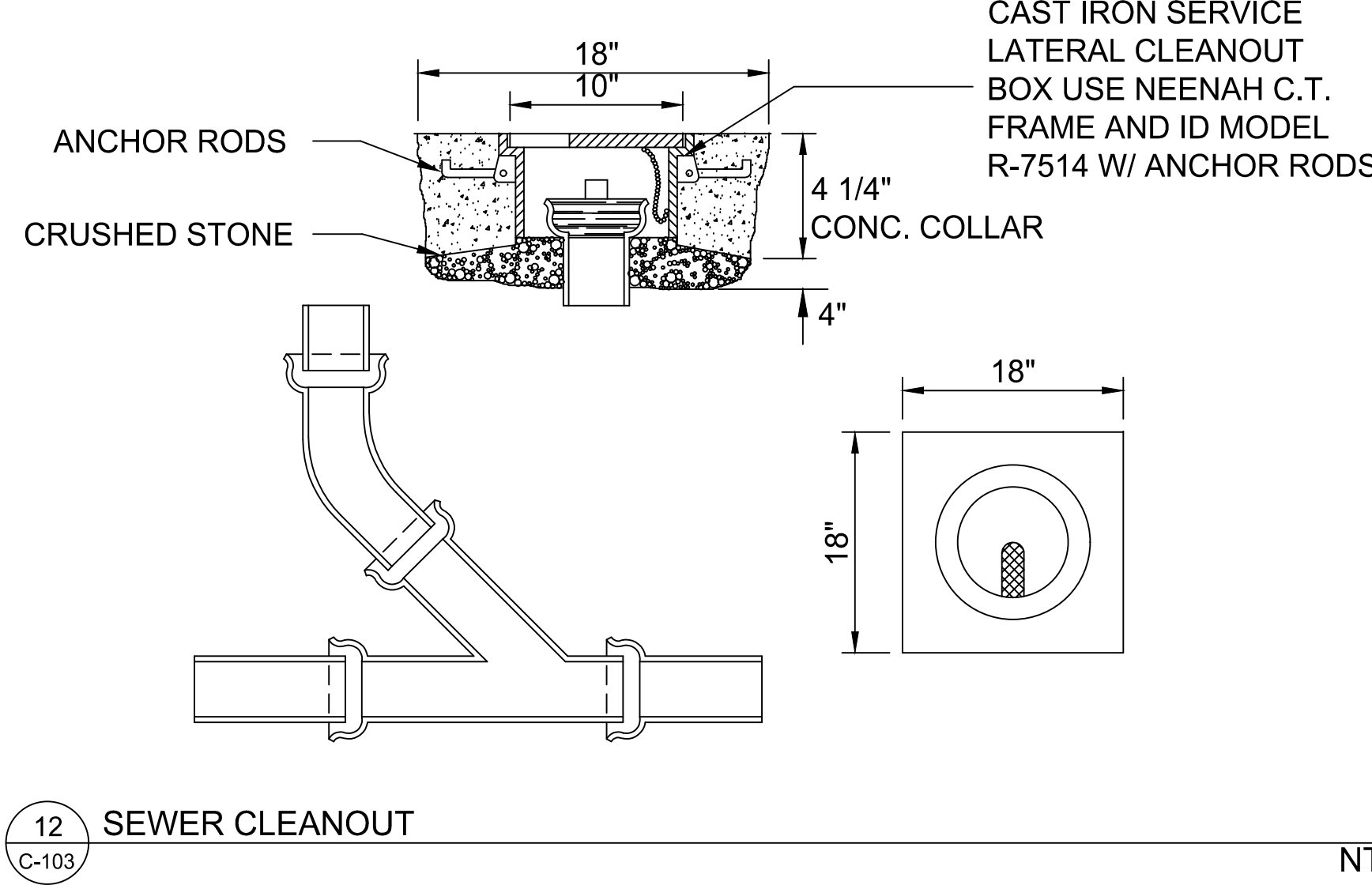
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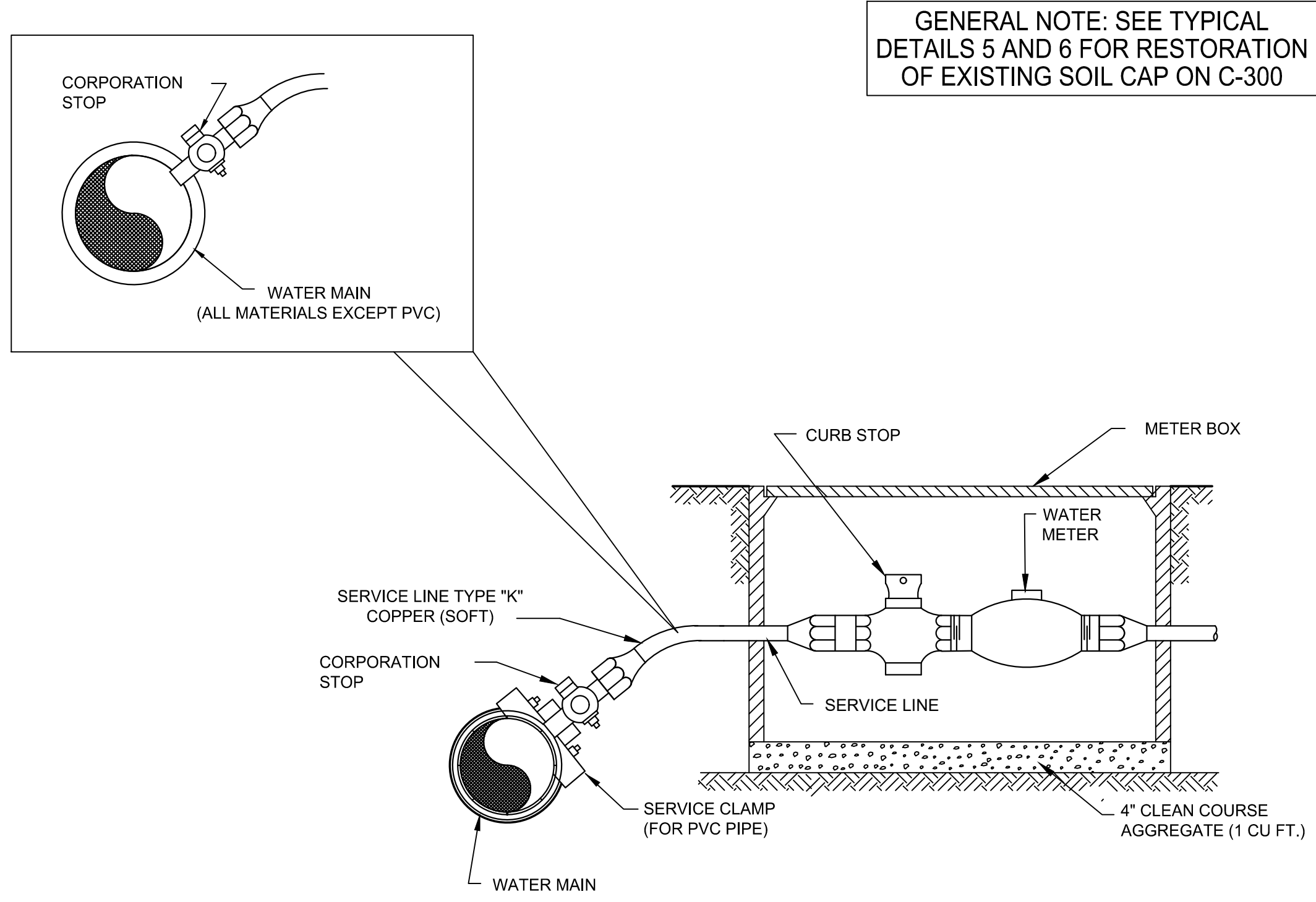


11 C-103 SEWER FORCEMAIN MANHOLE TIE-IN NTS

- ONLY ONE INSIDE DROP CONNECTION ALLOWED PER MANHOLE.
- MINIMUM MANHOLE DIAMETER WITH DROP CONNECTION SHALL BE 48".
- MAXIMUM DROP PIPE DIAMETER SHALL BE 8".
- NOT TO BE USED FOR NEW CONSTRUCTION.

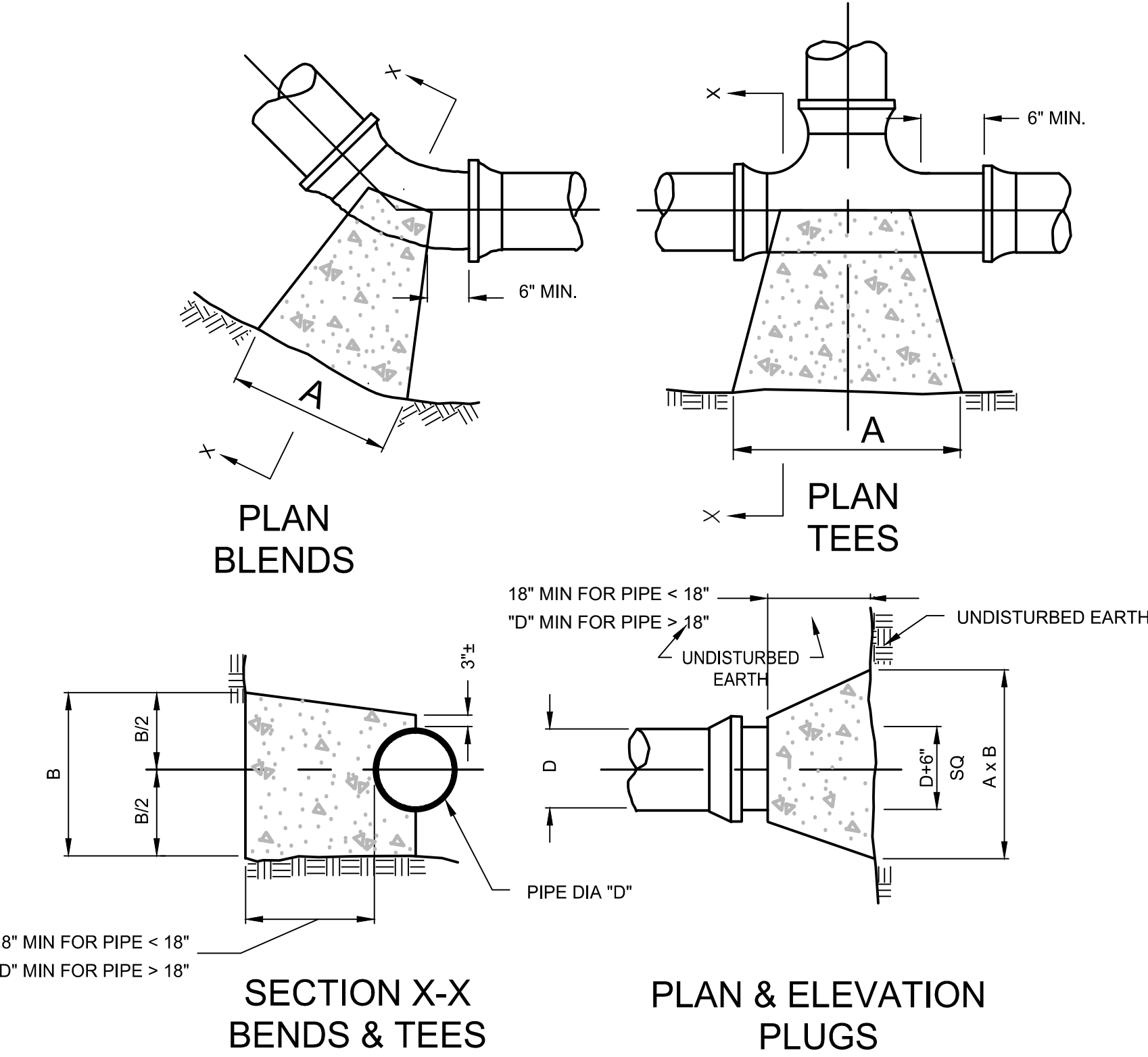


12 C-103 SEWER CLEANOUT NTS



13 C-103 WATER SERVICE CONNECTION NTS

- DIRECT TAP OF PVC MAINS SHALL NOT BE ALLOWED. SERVICE CLAMPS FOR PVC MAINS SHALL PROVIDE FULL SUPPORT AROUND CIRCUMFERENCE OF PIPE AND A MINIMUM 2" WIDTH BEARING AREA ALONG PIPE AXIS.

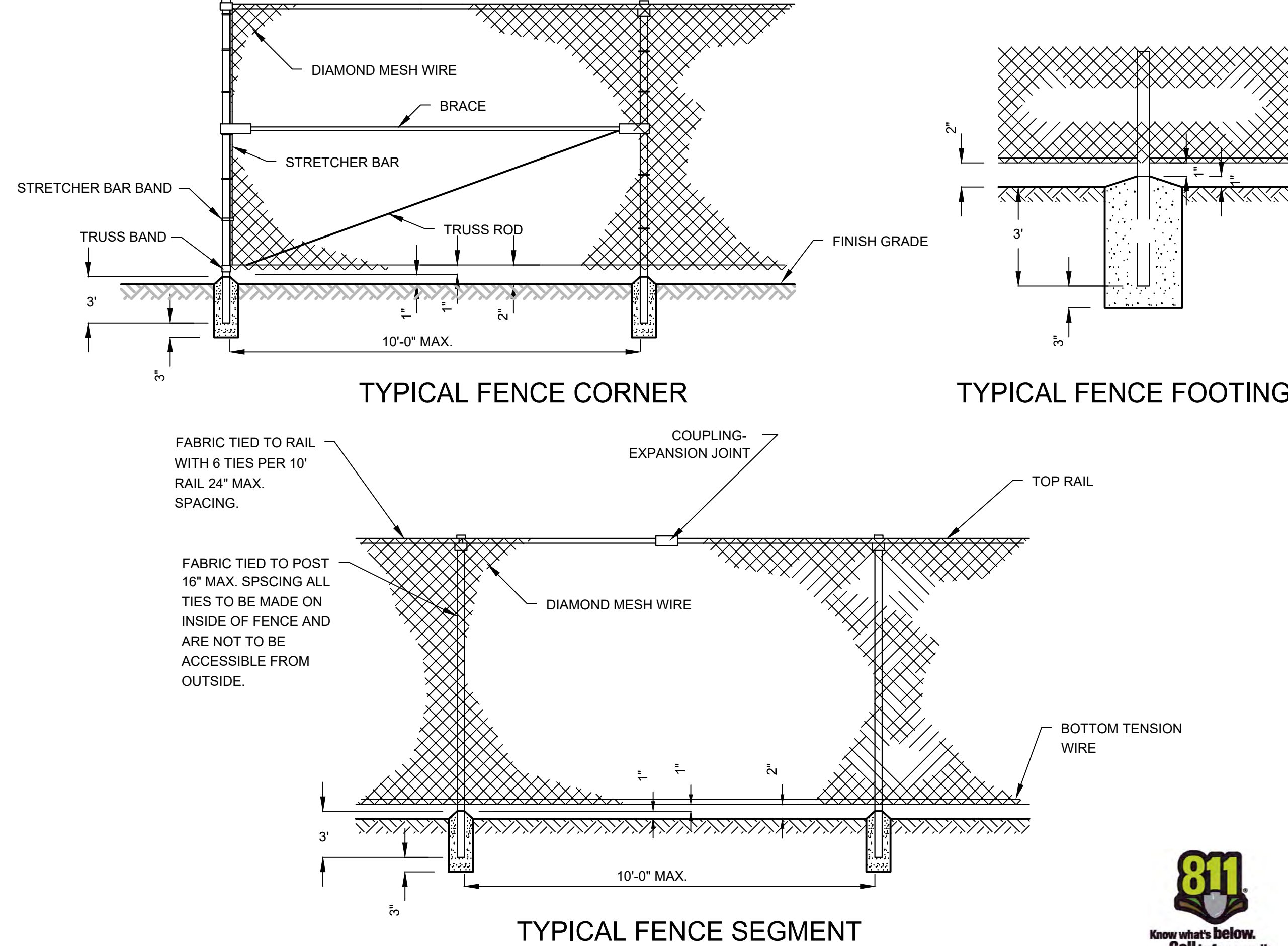


14 C-103 THRUST BLOCK DETAIL

- DIMENSIONS A & B SHALL BE DETERMINED IN THE FIELD AS REQUIRED TO PROVIDE THE GIVEN BEARING AREA AND TO MEET FIELD CONDITIONS.

DESIGN PIPE PRESSURE = 150 psi  
ALLOWABLE SOIL BEARING PRESSURE = 2000 PSF

MIN. THRUST BLOCK BEARING AREAS (S.F.)					
SIZE	90° BEND	45° BEND	22 1/2° BEND	TEES	PLUGS
	AxB	AxB	AxB	AxB	AxB
2.5	0.52	0.28	0.16	0.37	0.37
4	1.33	0.72	0.40	0.94	0.94
6	3.00	1.62	0.83	2.12	2.12
8	5.33	2.88	1.50	3.78	3.78
10	8.33	4.50	2.30	5.90	5.90
12	12.00	6.50	3.33	8.50	8.50
14	16.33	8.83	4.50	11.44	11.44



15 C-103 TYPICAL FENCE DETAIL

GENERAL NOTE: SEE TYPICAL DETAILS 5 AND 6 FOR RESTORATION OF EXISTING SOIL CAP ON C-300

US Army Corps of Engineers

REVISIONS	MARK	DATE	DESCRIPTION

DESIGNED BY: MA	DATE: 09/24/2021	CHECKED BY: MA	PROJECT NO.: 60620247
DRAWN BY: KP		APPROVED BY: BS	

U.S. ARMY CORPS OF ENGINEERS  
KANSAS CITY DISTRICT

AECOM  
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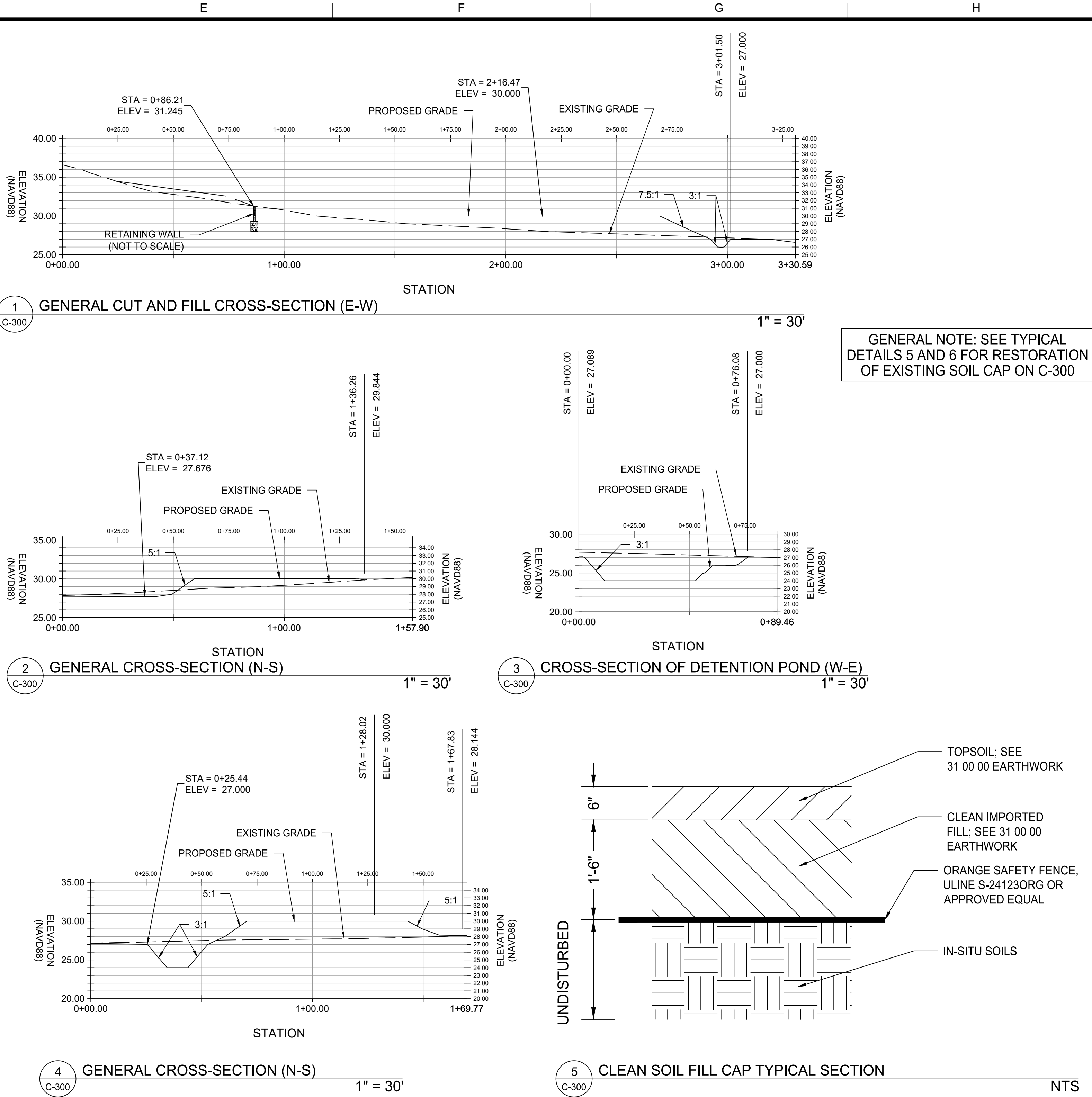
**NEW SITE AND UTILITY  
PLAN UTILITY DETAILS**

SHEET ID  
**C-103**



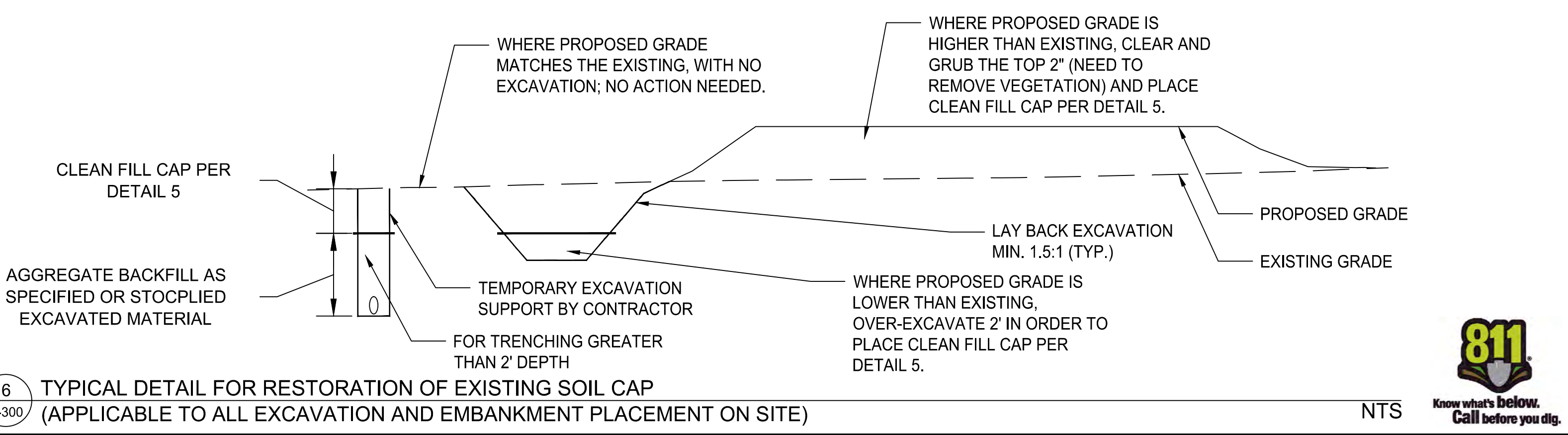
NTS


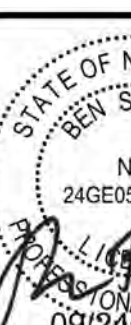
VERIFY SCALE BAR IS ONE INCH ON ORIGINAL DRAWING



NOTES:

1. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE DESIGN OF SOIL EROSION AND SEDIMENT CONTROL (SESC) DURING AND POST CONSTRUCTION; THIS IS ANTICIPATED PART OF THE PERMIT REVIEW.
2. CUT AND FILL PROFILE IS SHOWN FOR SELECTED ALIGNMENTS; THE CONTRACTOR SHALL PRESENT THEIR MEANS AND METHODS OF PERFORMING THE GRADING SCHEME ACCORDING TO THE ABOVE PLAN AND DOCUMENTING AS-BUILT GRADING WORK.
3. THE CONSTRUCTION AREA HAS A 2 FT FILL CAP CONSISTING OF 6" TOPSOIL AND 18" COMMON FILL. THIS MATERIAL MAY BE STOCKPILED AND REUSED. A LOCATION WILL BE PROVIDED BY THE PROJECT MANAGER. ALL SOIL CUTS MORE THAN 2 FT SHALL BE REMOVED AT A MINIMUM AN ADDITIONAL 2 FT FROM THE PROPOSED CUT AND RESTORED WITH CLEAN FILL (CAP MATERIAL). ADDITIONAL ENVIRONMENTAL REQUIREMENTS SHALL BE SATISFIED PER EPA OR NJDEP GUIDANCE REGULATIONS. ALL SOIL CUTS BELOW 2 FT SHALL NOT BE REUSED; PROPER STAGING AND DISPOSAL SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR AND SHALL COMPLY TO NJ ENVIRONMENTAL PROTECTION AGENCY (NJDEP) CURRENT REGULATIONS.
4. THE CONTRACTOR SHALL ESTABLISH CONTROL POINTS BASED ON BENCHMARKS OUTSIDE THE SITE AND ALL GRADING SHALL COMPLY WITH THE PRECISION REQUIREMENTS OF THE TOWNSHIP.
5. ALL NEW SLOPES WITHIN THE SITE SHALL NOT BE STEEPER THAN 3:1 (H:V) UNLESS PERMITTED BY FLORENCE TOWNSHIP.
6. DESIGN OF THE DETENTION POND SHALL BE PROVIDED BY THE CONTRACTOR.
7. PRELIMINARY CUT AND FILL VOLUMES ARE AS FOLLOWS (INCLUDES DETENTION POND CUT), BASED ON A TOTAL DISTURBANCE OF 36,781 SQ FT:
  - 7.1. CUT = 390 CY (610 CY\*)
  - 7.2. FILL = 780 CY (1,000 CY\*)
  - 7.3. NET = 390 CY (FILL) (610 CY\*)
  - 7.4. \*INCLUDES 220 CY OF INCIDENTAL OVER-EXCAVATION
8. WALKWAY PATH SHALL BE GRADED TO NOT EXCEED 5% RUNNING SLOPES PER NJ IBC 2018 AND CURRENT ADA STANDARDS.
9. ALL DISTURBED AREAS, ESPECIALLY EMBANKMENT SLOPES, SHALL BE STABILIZED IN ACCORDANCE WITH *THE STANDARDS FOR SOIL EROSION AND SEDIMENT CONTROL IN NEW JERSEY*.
10. BACKFILL RECOMMENDED FOR MASS FILL OPERATION INCLUDES DENSE-GRADED AGGREGATE.
11. EARTHWORK REQUIREMENTS INCLUDE PROPER BACKFILL AND COMPACTION IN 8-INCH LIFTS.
12. FINAL ELEVATIONS SHALL BE SURVEYED BY LICENSED SURVEYOR IN THE STATE OF NEW JERSEY AND RECORDED IN AS-BUILT DOCUMENTATION.
13. QUALITY CONTROL INSPECTIONS ARE REQUIRED, AND WILL INCLUDE IN-SITU DENSITY TESTING.
14. FREQUENCY OF INSPECTIONS AND TESTS WILL BE DETERMINED UNDER THE DISCRETION OF THE USACE QA/QC PROGRAM.
15. THE BUILDING PAD AND FOUNDATION SUBGRADE SHALL BE CERTIFIED BY AN INDEPENDENT GEOTECHNICAL ENGINEERING CONSULTANT PER NJ BUILDING CODE CH. 17, 1703.1.4 & 1705.6.



 <b>US Army Corps of Engineers®</b>		<table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <th colspan="2" style="text-align: left;">REVISIONS</th> </tr> <tr> <td style="width: 50%; height: 40px;"></td> <td style="width: 50%;"></td> </tr> <tr> <td style="height: 40px;"></td> <td></td> </tr> <tr> <td style="height: 40px;"></td> <td></td> </tr> <tr> <td style="height: 40px;"></td> <td></td> </tr> <tr> <td style="height: 40px;"></td> <td></td> </tr> <tr> <td style="height: 40px;"></td> <td></td> </tr> <tr> <td style="height: 40px;"></td> <td></td> </tr> <tr> <td style="text-align: center;">MARK</td> <td style="text-align: center;">DATE</td> </tr> <tr> <td style="text-align: center;">DESCRIPTION</td> <td></td> </tr> </table>		REVISIONS																MARK	DATE	DESCRIPTION	
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<p>SHEET ID</p> <h1 style="margin: 0;">C-300</h1>																							



STRUCTURAL ABBREVIATIONS

#	NUMBER
&	AND
=	EQUAL, EQUALS
@	AT
A/C	AIR CONDITIONING
AB	ANCHOR BOLT
ACI	AMERICAN CONCRETE INSTITUTE
ACIP	AUGER CAST-IN-PLACE PILE / AUGER CAST GROUT PILE
ADJL	ADDITIONAL
ADJ	ADJACENT
AF	ABOVE FINISHED FLOOR
AH, AHU	AIR HANDLING UNIT
AISC	AMERICAN INSTITUTE OF STEEL CONSTRUCTION
ALT	ALTERNATE
APA	AMERICAN PLYWOOD ASSOCIATION
APPROX	APPROXIMATELY
ARCH	ARCHITECTURAL
ASTM	AMERICAN SOCIETY FOR TESTING AND MATERIALS
AWS	AMERICAN WELDING SOCIETY
BET	BETWEEN
BLDG	BUILDING
BLW	BELOW
BM	BEAM
BN	BOUNDARY NAIL
BOC	BOTTOM OF CONCRETE
BOD	BOTTOM OF DECK
BOF	BOTTOM OF FOOTING
BOT	BOTTOM
BRG	BEARING
C	CHANNEL
CANT	CANTILEVER / CANTILEVERED
CE	CARBON EQUIVALENT
CENT	CENTERED
CFMF	COLD-FORMED METAL FRAMING
CIP	CAST-IN-PLACE
CJ	CONTRACTION/CONSTRUCTION JOINT / CEILING JOIST
CL	COMPLETE JOINT PENETRATION
CL	CENTERLINE
CLR	CLEAR
COL	COLUMN
CONC	CONCRETE
COND	CONDITION
CONN	CONNECT / CONNECTION
CONST	CONSTRUCTION
CONT	CONTINUOUS, CONTINUED
CONTR	CONTRACTOR
COORD	COORDINATE
COR	CORNER
D	DEEP / DEPTH
DEG	DEGREE
DEG F	DEGREES FAHRENHEIT
DEM	DEMOLISH / DEMOLITION
DEP	DEPRESSED
DET	DETAIL
DIA	DIAMETER
DIAG	DIAGONAL
DL	DEAD LOAD
DITTO	DITTO
DOR	DESIGNER
DT	DRAWING(S)
DWG(S)	DRAWING(S)
DWL	DOWEL
E	EAST
EA	EACH
EF	EACH FACE
ELEC	ELECTRICAL
ELEV	ELEVATION
EMBED	EMBEDMENT, EMBEDDED
EN	EDGE NAIL
EQN	EQUATION
EQUIP	EQUIPMENT
ES	EACH SIDE
EW	EACH WAY
EXIST	EXISTING
EXT	EXTERNAL / EXTERIOR
f <sub>c</sub>	SPECIFIED MINIMUM COMPRESSIVE STRESS
FF	FAR FACE
FFE	FINISH FLOOR ELEVATION
FG	FINISH GRADE
FJ	FLOOR JOIST
FMG	FRAMING
FN	FIELD NAIL
FND	FOUNDATION
FOC	FACE OF CONCRETE
FOS	FACE OF STUD
FS	FAR SIDE
FT, 'F	FOOT
FTG	FOOTING
Fy	SPECIFIED MINIMUM YIELD STRESS
GA	GAGE
GLB	GLUE LAMINATED BEAM
GT	GIRDER TRUSS
GUSS	GUSSET
GYP BD	GYPSON BOARD
HD	HOLD DOWN
HDR	HEADER
HGR	HANGER
HK	HOOK
HORIZ	HORIZONTAL
HP	HIGH POINT
HSS	HOLLOW STRUCTURAL SECTION
HT	HEIGHT
HVAC	HEATING / VENTILATION / AIR CONDITIONING
I	SECOND AREA MOMENT OF INERTIA
IBC	INTERNATIONAL BUILDING CODE
ICF	INSULATED CONCRETE FORM
ID	INSIDE DIAMETER
I, "	ISOLATION JOINT
INCL	INCLUDE
INFO	INFORMATION
INS	INSULATED / INSULATION

STRUCTURAL ABBREVIATIONS (CONT)

JST	JOIST
K, KIP(S)	THOUSAND POUNDS
KIP-FT	THOUSAND POUND-FEET (MOMENT / TORQUE)
KSI	THOUSAND POUNDS PER SQUARE INCH
L	LENGTH / ANGLE
LAST	LOWEST ANTICIPATED SERVICE TEMPERATURE
LB	POUND
LB-FT	POUND-FEET (MOMENT / TORQUE)
Ld	TENSION DEVELOPMENT LENGTH FOR STRAIGHT BARS
Ldc	COMPRESSION DEVELOPMENT LENGTH FOR STRAIGHT BARS
Ldh	TENSION DEVELOPMENT LENGTH FOR STANDARD HOOKS
LFRS	LATERAL FORCE RESISTING SYSTEM
LG	LONG
LL	LIVE LOAD
LLH	LONG LEG HORIZONTAL
LLV	LONG LEG VERTICAL
LOC	LOCATE / LOCATION
LONG	LONGITUDINAL
LP	LOW POINT
Lst	TENSION SPLICE LENGTH
Lsc	COMPRESSION SPLICE LENGTH
LW	LIGHT-WEIGHT
MAX	MAXIMUM
MB	MACHINE BOLT
MBR	MEMBER
MECH	MECHANICAL
MED	MEDIUM
MF	MOMENT FRAME
MFG	MANUFACTURING
MFR	MANUFACTURER
MIN	MINIMUM
MOD	MODIFY / MODIFIED
N	NORTH
N/A	NOT APPLICABLE
NF	NEAR FACE
NOM	NOMINAL
NS	NEAR SIDE
OC	ON CENTER
OD	OUTSIDE DIAMETER
OH	OPPOSITE HAND / OVERHEAD
OWSJ	OPEN WEB STEEL JOIST
P/C	PIN CONNECTED
PAR	PARALLEL
PCC	PRECAST CONCRETE
PCF	POUNDS PER CUBIC FOOT
PEN	PENETRATION
PFJ	PERIMETER FELT JOINT
PL	PLATE
PLYWD	PLYWOOD
PNL	PANEL
PSF	POUNDS PER SQUARE FOOT
PSI	POUNDS PER SQUARE INCH
PT	PRESSURE TREATED / POINT / PRETENSIONED
REINF	REINFORCING / REINFORCED
REQ	REQUIRED
RET	RETURN / RETAINING
REV	REVISION / REVISED
RF	RAFTER
RFT	RAFTER
RPM	REVOLUTIONS PER MINUTE
RS	ROUGH SAWN
RT	ROOF TRUSS
S	SECTION MODULUS / SOUTH
SC	SLIP CRITICAL
SCBRW	SEGMENTAL BLOCK RETAINING WALL
SCHED	SCHEDULE
SDI	STEEL DECK INSTITUTE
SECT	SECTION
SEIS	SEISMIC
SEOR	STRUCTURAL ENGINEER
SEP	SEPARATION
SFRS	SEISMIC FORCE RESISTING SYSTEM
SHT	SHEET
SIM	SIMILAR
SJI	STEEL JOIST INSTITUTE
SMF	SPECIAL MOMENT FRAME
SMS	SHEET METAL SCREW
SOG	SLAB-ON-GROUND
SPEC(S)	SPECIFICATION(S)
SPRT	SUPPORT
SQ	SQUARE
SS	STAINLESS STEEL
STRUCT	STRUCTURAL / STRUCTURE
SUSP	SUSPENDED
SYM	SYMMETRICAL
T&B	TOP AND BOTTOM
T&G	TONGUE AND GROOVE
TGB	TOP OF GRADE BEAM
THK	THICK / THICKNESS
TL	TOTAL LOAD
TN	TOE NAIL
TOB	TOP OF BEAM
TOC	TOP OF CONCRETE
TOF	TOP OF FOOTING
TOS	TOP OF STEEL
TOSL	TOP OF SLAB
TOW	TOP OF WALL
TYP	TYPICAL
UNO	UNLESS NOTED OTHERWISE, UNLESS OTHERWISE NOTED
UON	UNLESS OTHERWISE NOTED
VB	VAPOR BARRIER
VERT	VERTICAL
W	WIDTH / WEST / WIDE FLANGE
w/	WITH
WF	WIDE FLANGE
WFRS	WIND FORCE RESISTING SYSTEM
WPT	WORKING POINT
WT	WEIGHT / TEE SECTION
WWF	WELDED WIRE FABRIC
WWR	WELDED WIRE REINFORCEMENT
x	BY / TIMES

STRUCTURAL LEGEND

TOS = +XX	=	TOP OF STEEL ELEVATION MEASURED FROM REFERENCED PLAN ELEVATION = 0
TOC = +XX	=	TOP OF CONCRETE ELEVATION MEASURED FROM REFERENCED PLAN ELEVATION = 0
BOD = +XX	=	BOTTOM OF DECK ELEVATION MEASURED FROM REFERENCED PLAN ELEVATION = 0
	=	FLOOR / ROOF OPENING
	=	TOP OF SLAB ELEVATION MEASURED FROM REFERENCED PLAN ELEVATION = 0
	=	COLUMN GRID MARK
	=	DECK SPAN
	=	SECTION / DETAIL NUMBER / LETTER
	=	SECTION / DETAIL MARK
	=	SHEET NUMBER WHERE SECTION / DETAIL MARK IS DRAWN
	=	MOMENT CONNECTION
	=	CANTILEVER MOMENT CONNECTION
	=	FULLY RESTRAINED MOMENT SPLICE
	=	HORIZONTAL BRIDGING
	=	CROSS BRIDGING
	=	SLAB-ON-GRADE ISOLATION JOINT (IJ)
	=	SLAB-ON-GRADE CONTRACTION/CONSTRUCTION JOINT (CJ)
	FX	= FOOTING MARK
	EL. -YY	= BOTTOM OF FOOTING ELEVATION
	PX	= PIER MARK (WHERE APPLICABLE)
	PLAN VIEW	

DEVELOPMENT LENGTH FOR STRAIGHT DEFORMED BARS IN TENSION

DEFORMED BAR SIZE	CASE 1A/1B <sup>1</sup>		CASE 2 <sup>1</sup>	
	TOP <sup>2</sup>	ALL OTHER	TOP <sup>2</sup>	ALL OTHER
	Ld (IN)	Ld (IN)	Ld (IN)	Ld (IN)
#3	17	13	25	20
#4	23	17	34	26
#5	28	22	42	32
#6	34	26	50	39
#7	49	38	73	56
#8	56	43	83	64
#9	63	48	94	72
#10	70	60	106	81

CLASS B SPLICE LENGTH FOR STRAIGHT DEFORMED BARS IN TENSION

DEFORMED BAR SIZE	CASE 1A/1B <sup>1</sup>		CASE 2 <sup>1</sup>	
	TOP <sup>2</sup>	ALL OTHER	TOP <sup>2</sup>	ALL OTHER
	Ld (IN)	Ld (IN)	Ld (IN)	Ld (IN)
#3	22	17	33	25
#4	29	23	43	34
#5	36	28	54	42
#6	43	34	65	50
#7	63	49	95	73
#8	72	56	108	83
#9	81	63	122	94
#10	92	70	137	106

DEVELOPMENT LENGTH FOR STANDARD HOOKS IN TENSION

DEFORMED BAR SIZE	CONFINED <sup>3</sup>	ALL OTHER
	Ldh (IN)	Ldh (IN)
#3	6	7
#4	7	9
#5	9	11
#6	11	13
#7	12	15
#8	14	17
#9	16	20
#10	18	22

DEVELOPMENT LENGTH SCHEDULE NOTES:

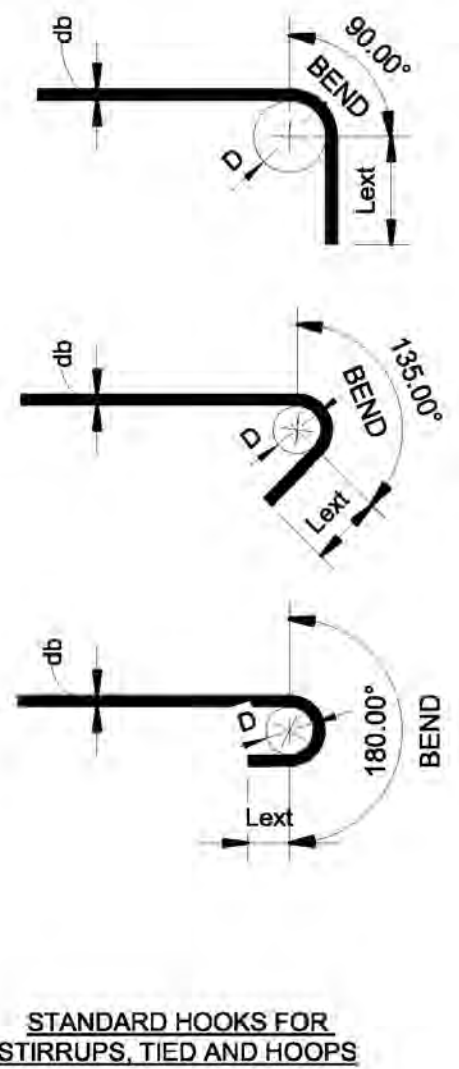
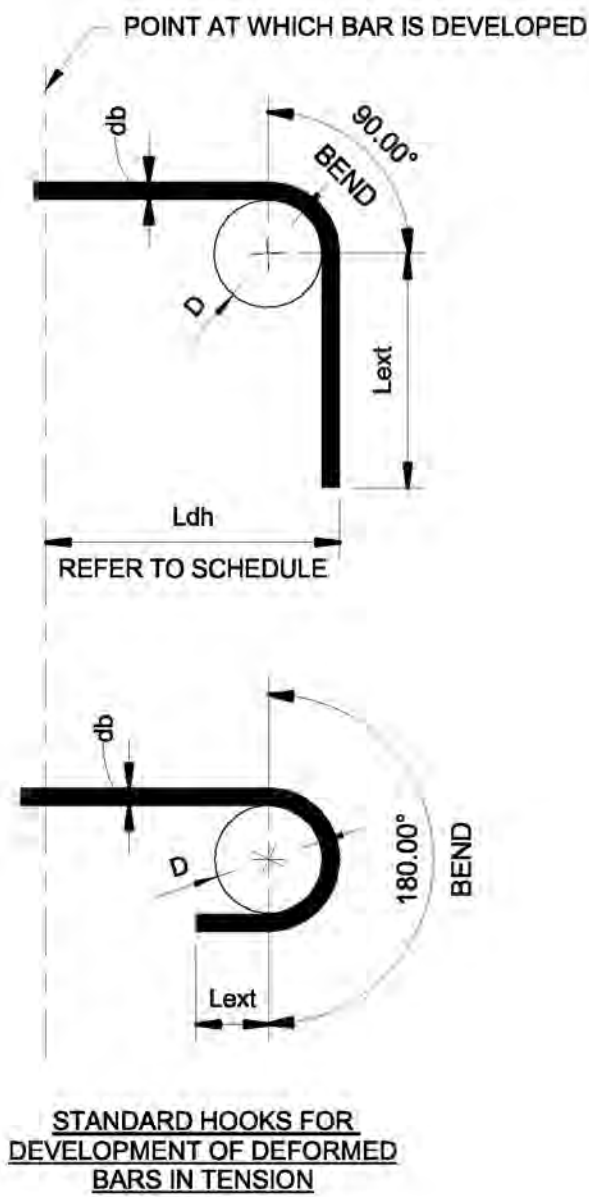
- CASES FOR STRAIGHT BARS IN TENSION ARE DEFINED AS FOLLOWS:  
**CASE 1A:** CLEAR SPACING, CS, BETWEEN BARS BEING DEVELOPED OF LAP SPLICED IS GREATER THAN OR EQUAL TO BAR DIAMETER CLEAR COVER, CC, IS GREATER THAN OR EQUAL TO BAR DIAMETER OF STIRRUPS OR TIES THROUGH Ldh ARE PRESENT AND NO LESS THAN CODE MINIMUM  
**CASE 1B:** CLEAR SPACING, CS, BETWEEN BARS BEING DEVELOPED OF LAP SPLICED IS GREATER THAN OR EQUAL TO TWICE BAR DIAMETER CLEAR COVER, CC, IS GREATER THAN OR EQUAL TO BAR DIAMETER  
**CASE 2:** ALL OTHER CASES
- "TOP" STRAIGHT BARS IN TENSION ARE DEFINED AS HORIZONTAL REINFORCING BARS WITH MORE THAN 12 INCHES OF FRESH CONCRETE PLACED BELOW Ldh OR Lts.
- "CONFINED" STANDARD HOOKS IN TENSION ARE DEFINED AS FOLLOWS:  
A. 90-DEGREE HOOKS OF #11 AND SMALLER BARS THAT ARE (1) ENCLOSED ALONG Ldh WITHIN TIES OR STIRRUPS PERPENDICULAR TO Ldh AT A SPACING LESS THAN OR EQUAL TO 3 BAR DIAMETERS; OR (2) ENCLOSED ALONG Lext BEYOND HOOK, INCLUDING THE BEND WITHIN TIES OR STIRRUPS PERPENDICULAR TO Lext AT A SPACING OF LESS THAN OR EQUAL TO 3 BAR DIAMETERS.  
B. 180-DEGREE HOOKS OF #11 AND SMALLER BARS THAT ARE ENCLOSED ALONG Ldh WITHIN TIES OR STIRRUPS PERPENDICULAR TO Ldh AT A SPACING LESS THAN OR EQUAL TO 3 BAR DIAMETERS.

LAP SPLICE LENGTH SCHEDULE NOTES:

- UNLESS OTHERWISE NOTED, FOR ALL LAP SPLICES USE CLASS B SPLICE LENGTH FOR STRAIGHT BARS IN TENSION.
- CASES FOR STRAIGHT BARS IN TENSION AND "TOP" STRAIGHT BARS IN TENSION ARE AS DEFINED FOR DEVELOPMENT OF REINFORCEMENT.
- WHERE BARS OF DIFFERENT SIZE ARE LAPPED IN TENSION, Lst MUST BE THE GREATER OF Ld FOR THE LARGER BAR AND Lst OF THE SMALLER BAR.

STANDARD HOOK NOTES:

- FOR STANDARD HOOKS FOR DEVELOPMENT OF DEFORMED BARS IN TENSION:  
A. MINIMUM INSIDE BEND DIAMETER, D = 6db FOR #3 THROUGH #8 BARS; D = 8db FOR #9 THROUGH #11 BARS.  
B. STRAIGHT EXTENSION, Lext = 12db FOR 90-DEGREE BENDS; AND Lext = THE GREATER OF 4db AND 2.5 INCHES FOR 180-DEGREE BENDS.
- FOR STANDARD HOOKS FOR STIRRUPS, TIES, AND HOOPS:  
A. MINIMUM INSIDE BEND DIAMETER, D = 4db FOR #3 THROUGH #5 BARS; D = 6db FOR #6 THROUGH #8 BARS.  
B. STRAIGHT EXTENSION FOR 90-DEGREE HOOKS, Lext = THE GREATER OF 6db AND 3 INCHES FOR #3 THROUGH #5 BARS; AND Lext = 12db FOR #6 THROUGH #8 BARS.  
C. STRAIGHT EXTENSION FOR 135-DEGREE HOOKS, Lext = THE GREATER OF 6db AND 3 INCHES.  
D. STRAIGHT EXTENSION FOR 180-DEGREE HOOKS, Lext = THE GREATER OF 4db AND 2.5 INCHES.
- IT IS PERMITTED TO USE A LONGER STRAIGHT EXTENSION LENGTH THAN THE MINIMUM ABOVE.



US Army Corps of Engineers®

REVISIONS

MARK

DATE

DESCRIPTION

DESIGNED BY: SA

DRAWN BY: AK

CHECKED BY: ME

APPROVED BY: CH

PROJECT NO.: 60620247

U.S. ARMY CORPS OF ENGINEERS KANSAS CITY DISTRICT

AECOM 100 RED SCHOOLHOUSE RD CHESTNUT RIDGE, NY

ROEBLING STEEL SUPERFUND SITE VILLAGE OF ROEBLING - FLORENCE TOWNSHIP, NJ OPERABLE UNIT 4 - PRESTRETCHER/PRETENSIONING SYSTEM BUILDING

STRUCTURAL GENERAL NOTES 2



SHEET ID

S-002

1. ALL MATERIALS AND EQUIPMENT FURNISHED AND INSTALLED UNDER THIS CONTRACT AND DESIGNATED BY CHAPTER 17 OF IBC 2015, NEW JERSEY EDITION FOR SPECIAL INSPECTIONS SHALL BE INSPECTED AND TESTED BY THE AUTHORITY TO VERIFY COMPLIANCE, INCLUDING THE FOLLOWING CONSTRUCTION AND OPERATIONS:
  - A. CONCRETE CONSTRUCTION: (IBC 2015, SECTION 1705.3)
    - a. INSTALLATION OF CAST-IN-PLACE CONCRETE COMPONENTS
  - B. STEEL CONSTRUCTION: (IBC 2015, SECTION 1705.2 AND 1705.12.1)
    - a. INSPECTION OF STEEL FABRICATOR
    - b. INSTALLATION OF STRUCTURAL STEEL
    - c. WELDING OF STRUCTURAL STEEL
    - d. INSTALLATION OF HIGH STRENGTH BOLTS
  - C. SOILS (IBC 2015, SECTION 1705.6)
    - a. FILL PLACEMENT
2. SPECIAL INSPECTIONS CONDUCTED BY THE AUTHORITY DO NOT RELIEVE THE CONTRACTOR OF ANY RESPONSIBILITY TO PERFORM THE WORK AND HIS OWN QUALITY CONTROL IN ACCORDANCE WITH THE CONTRACT DOCUMENTS.

GENERAL	RISK CATEGORY	II
2.	DEAD LOAD - SELF-WEIGHT A. CONCRETE CONSTRUCTION B. STEEL CONSTRUCTION	SELF-WEIGHT SELF-WEIGHT
3.	DEAD LOAD - SUPERIMPOSED A. ROOF B. FACADE	15 PSF 15 PSF
4.	LIVE LOAD A. FLOOR B. ROOF C. PARTITIONS	300 PSF 20 PSF 15 PSF
5.	WIND LOAD CRITERIA A. ULTIMATE DESIGN WIND SPEED, $V_{ult}$ B. NOMINAL DESIGN WIND SPEED, $V_{des}$ C. WIND EXPOSURE CATEGORY D. INTERNAL PRESSURE COEFFICIENT, $GC_H$ E. MAXIMUM WIND SHEAR PER MWFRS CALCS	113 MPH 87.5 MPH C +/- 0.18 81 KIPS
6.	SEISMIC LOAD CRITERIA A. SEISMIC IMPORTANCE FACTOR, $I_e$ B. MAPPED SPECTRAL RESPONSE ACCELERATION FOR 0.2 SECOND PERIOD, $S_s$ C. MAPPED SPECTRAL RESPONSE ACCELERATION FOR 1.0 SECOND PERIOD, $S_1$ D. SITE CLASS E. DESIGN SPECTRAL RESPONSE ACCELERATION FOR 0.2 SECOND PERIOD, $S_{DS}$ F. DESIGN SPECTRAL RESPONSE ACCELERATION FOR 1.0 SECOND PERIOD, $S_{D1}$ G. SEISMIC DESIGN CATEGORY H. BASIC SEISMIC FORCE-RESISTING SYSTEM I. DESIGN BASE SHEAR J. SEISMIC RESPONSE COEFFICIENT, $C_s$ K. RESPONSE MODIFICATION COEFFICIENT, R L. ANALYSIS PROCEDURE USED	1.0 0.199g 0.049g C 0.172g 0.049g B STEEL SYSTEMS NOT SPECIFICALLY DETAILED FOR SEISMIC RESISTANCE 11 KIPS 0.0467 3.0 EQUIVALENT LATERAL FORCE ANALYSIS
7.	GEOTECHNICAL DATA A. ALLOWABLE BEARING PRESSURE	4 KSF
8.	SNOW LOAD A. GROUND SNOW LOAD, $p_g$ B. FLAT ROOF SNOW LOAD C. SNOW EXPOSURE FACTOR D. SNOW LOAD IMPORTANCE FACTOR, $I_e$ E. THERMAL FACTOR F. ROOF SLOPE FACTOR (PER IBCNJ) G. DRIFT SURCHARGE H. WIDTH OF SNOW DRIFT	25 PSF 15.75 PSF 0.9 1.0 1.0 1.0 17.6 PSF 5.44 FT
9.	RAIN LOAD A. RAIN INTENSITY	PER IBCNJ REQUIREMENTS
10.	FLOOD LOAD A. FLOOD ZONE	ZONE X

[illegible]

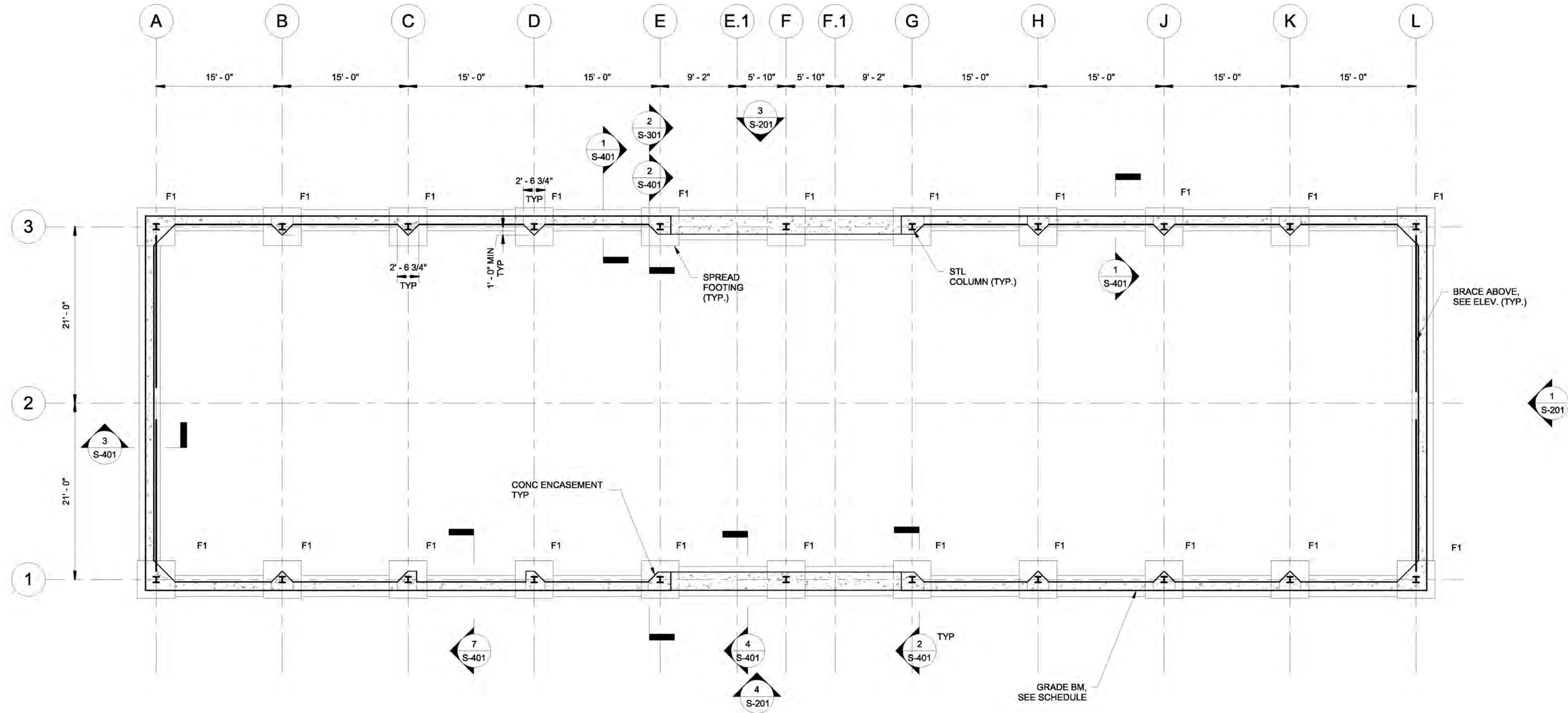
U.S. ARMY CORPS OF ENGINEERS KANSAS CITY DISTRICT	DESIGNED BY:	DATE:
	SA	09/24/2024
	DRAWN BY:	PROJECT NO.:
	AK	6950247
AECOM 100 RED SCHOOLHOUSE RD CHESTNUT RIDGE, NY	CHECKED BY:	
	ME	
	APPROVED BY:	
	CH	

ROEBLING STEEL SUPERFUND SITE  
VILLAGE OF ROEBLING - FLORENCE TOWNSHIP, NJ  
OPERABLE UNIT 4 - PRESTRETCHER/PREENSIONING SYSTEM BUILDING



**SHEET ID**

**S-003**



FOUNDATION PLAN  
1/8" = 1'-0"



PLAN NOTES - FOUNDATION

1. FOR GENERAL NOTES, SEE DRAWING S-001 THROUGH S-003.
2. FOR FOOTING AND GRADE BEAM SCHEDULE, REFER TO DRAWING S-601.
3. BOTTOM BOTTOM OF FOOTING ELEVATION IS + 26' - 0" UNLESS OTHERWISE NOTED THUS ON PLAN [ +/- X' - X" ] INDICATING DISTANCE ABOVE OR BELOW.



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APPROVED BY: CH	
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AECOM 100 RED SCHOOLHOUSE RD CHESTNUT RIDGE, NY	

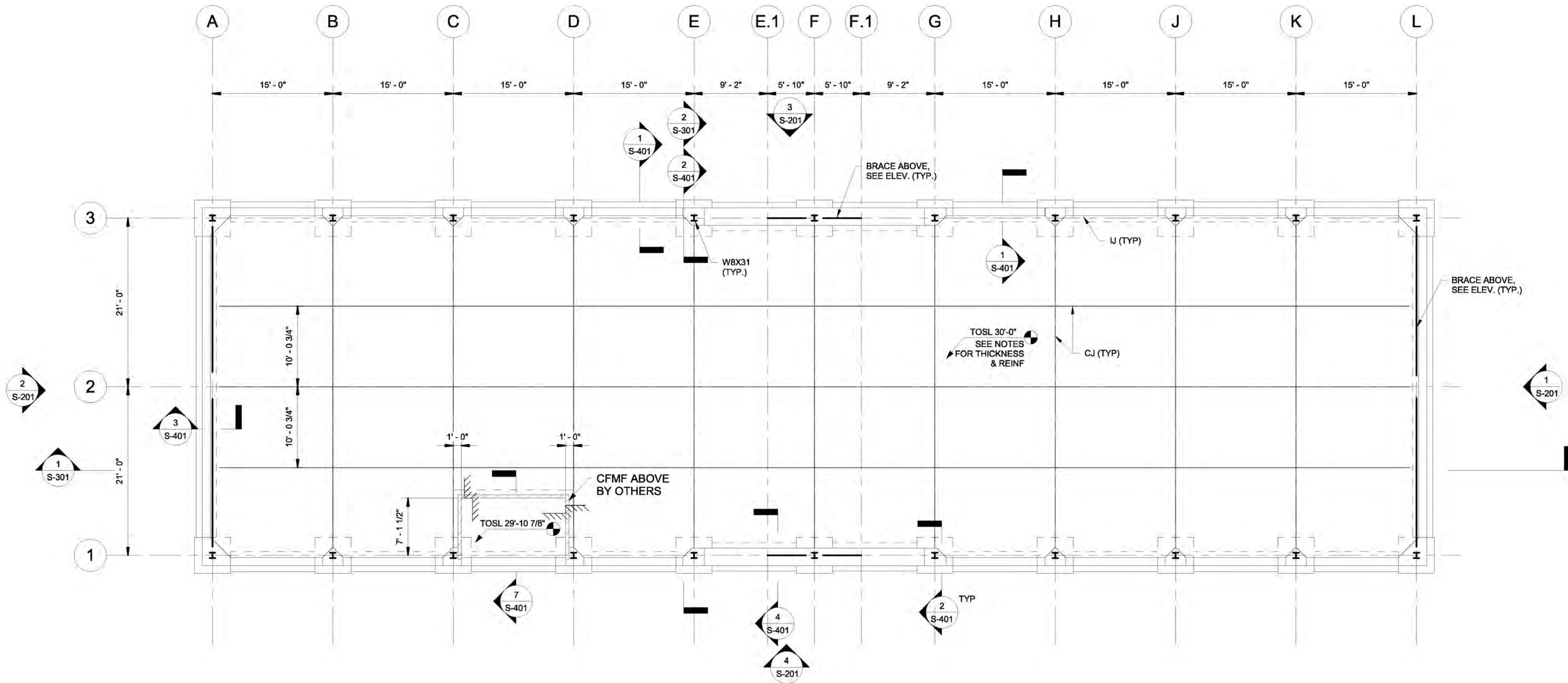
ROEBLING STEEL SUPERFUND SITE  
VILLAGE OF ROEBLING - FLORENCE TOWNSHIP, NJ  
OPERABLE UNIT 4 - PRESTRETCHER/PREENSIONING SYSTEM BUILDING



SHEET ID  
S-101

FOUNDATION PLAN

VERIFY SCALE BAR IS ONE INCH ON ORIGINAL DRAWING



SLAB-ON-GRADE PLAN  
1/8" = 1'-0"

PLAN NOTES - SLAB-ON-GRADE

- FOR GENERAL NOTES, SEE DRAWING S-001 THROUGH S-003.
- TOP OF SLAB ELEVATION SHALL BE 30'-0" UNLESS OTHERWISE NOTED.
- TYPICAL SLAB-ON-GRADE SHALL BE 6 INCHES THICK NORMAL-WEIGHT CONCRETE REINFORCED WITH #5 @ 12" ON CENTER EACH WAY.
- SLAB-ON-GRADE AT RECESSED VESTIBULE AREA SHALL BE 8 INCHES THICK NORMAL-WEIGHT CONCRETE REINFORCED WITH #5 @ 12" ON CENTER TOP & BOT EACH WAY.
- REINFORCEMENT MUST BE INTERRUPTED AT CONTRACTION/CONSTRUCTION JOINTS.
- PROVIDE CONTRACTION/CONSTRUCTION JOINTS (CJ) AND ISOLATION JOINTS (IJ) AS INDICATED ON PLAN.

**US Army Corps of Engineers**

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MARK	DESCRIPTION

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DRAWN BY: <th>PROJECT NO.:</th> <td colspan="2"> </td>	PROJECT NO.:		
AK	60620247		

U.S. ARMY CORPS OF ENGINEERS KANSAS CITY DISTRICT	AECOM 100 RED SCHOOLHOUSE RD CHESTNUT RIDGE, NY
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ROEBLING STEEL SUPERFUND SITE  
VILLAGE OF ROEBLING - FLORENCE TOWNSHIP, NJ  
OPERABLE UNIT 4 - PRESTRETCHER/PRE-TENSIONING SYSTEM BUILDING

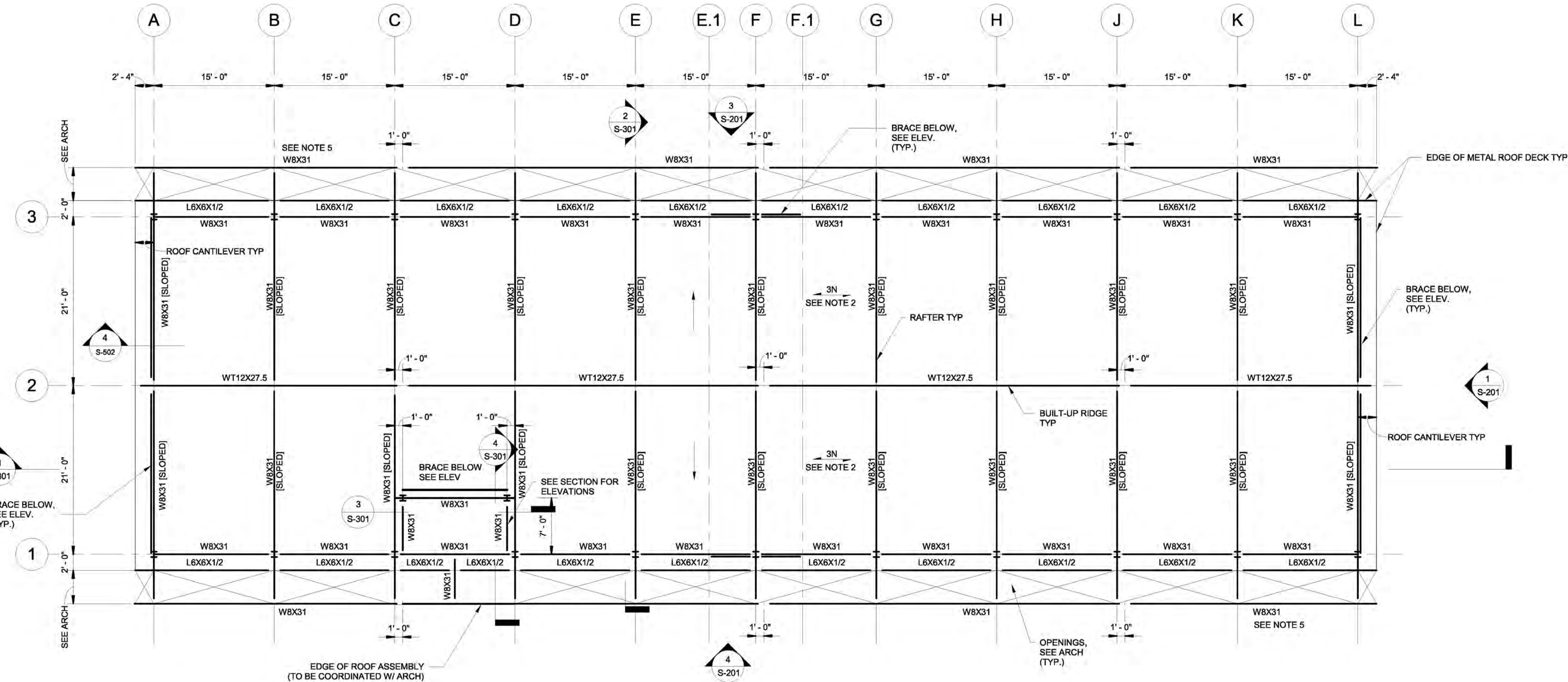
**SLAB-ON-GRADE PLAN**

STATE OF NEW JERSEY  
MUSTAFA ELMEHRIK  
No. 24660446600  
Professional Engineer

SHEET ID

**S-102**

VERIFY SCALE BAR IS ONE INCH ON ORIGINAL DRAWING



ROOF FRAMING PLAN  
1/8" = 1'-0"



PLAN NOTES - ROOF FRAMING

- FOR GENERAL NOTES, SEE DRAWINGS S-001 THROUGH S-003.
- ROOF DECK IS 18GA TYPE PLN3 BY VERO WITH 32/5 WELD PATTERN AT SUPPORTS AND SIDELAPS CONNECTED WITH PUNCHLOK II TOOL.
- REFER TO FRAMING SECTIONS ON S-402 FOR BUILT-UP WT SECTION
- TOP OF STEEL ELEVATION OF BEAMS ALONG GRIDLINES 1 AND 3 IS +42' - 5 1/2" UNLESS NOTED OTHERWISE.
- TOP OF STEEL ELEVATION OF W8X31 BEAMS AT ENDS OF RAFTERS IS DETERMINED BY ROOF SLOPE. SEE ELEVATIONS FOR ADDITIONAL INFORMATION.

LEGEND

I WIDE FLANGE COLUMN



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ROOFING STEEL SUPERFUND SITE  
VILLAGE OF ROEBLING - FLORENCE TOWNSHIP, NJ  
OPERABLE UNIT 4 - PRESTRETCHER/PRENSIONING SYSTEM BUILDING



SHEET ID  
S-103

A

B

C

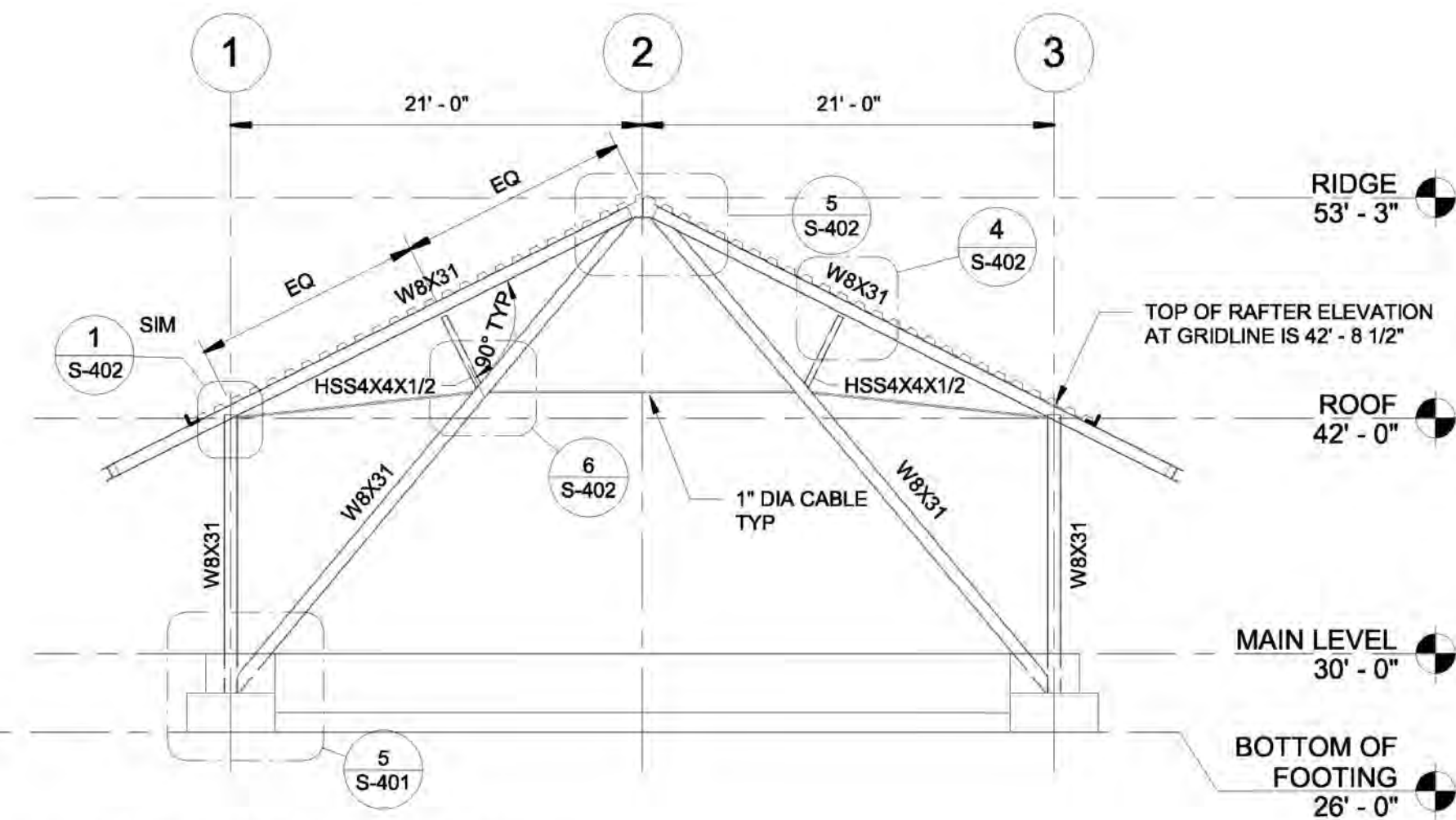
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E

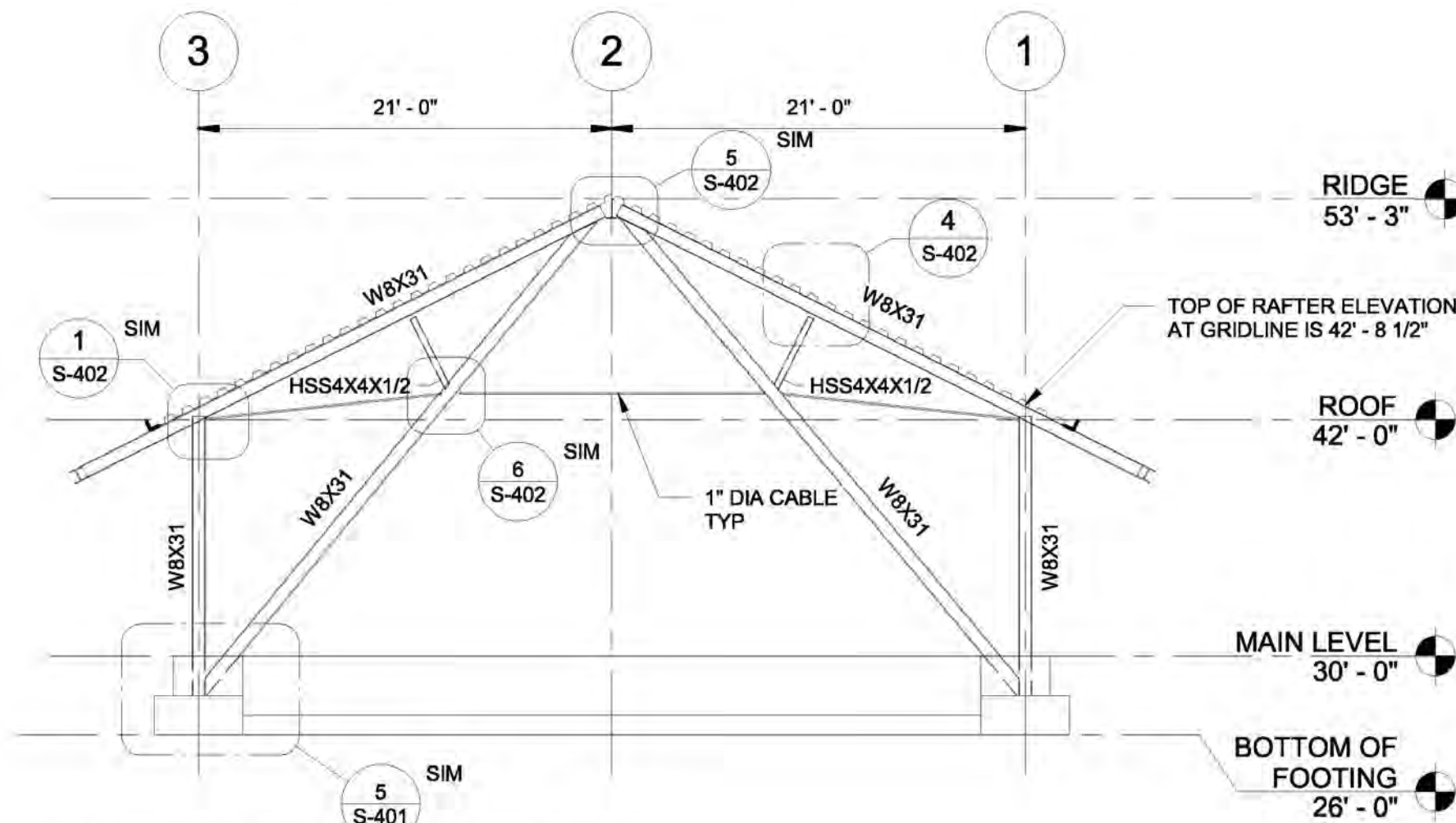
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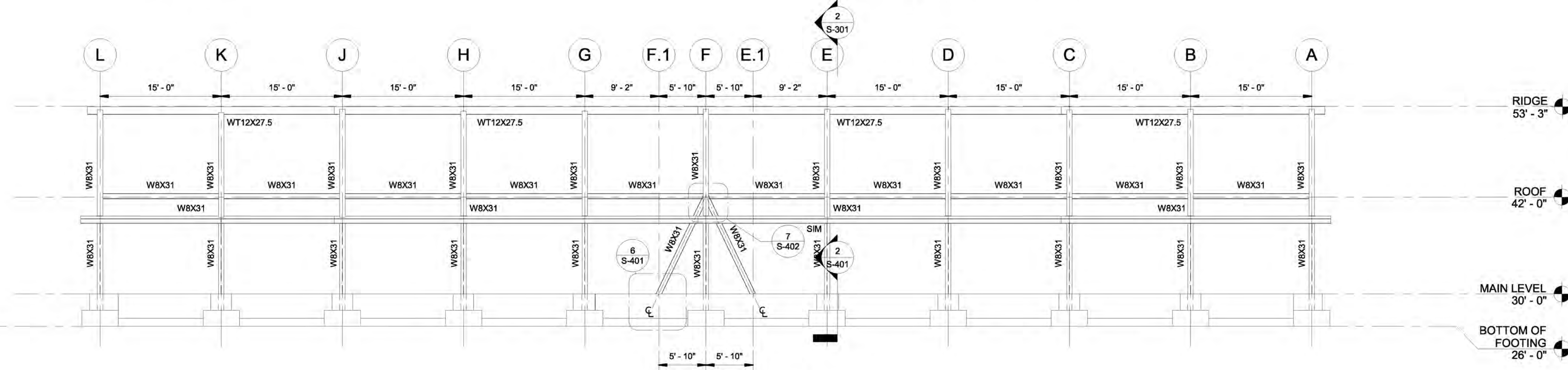
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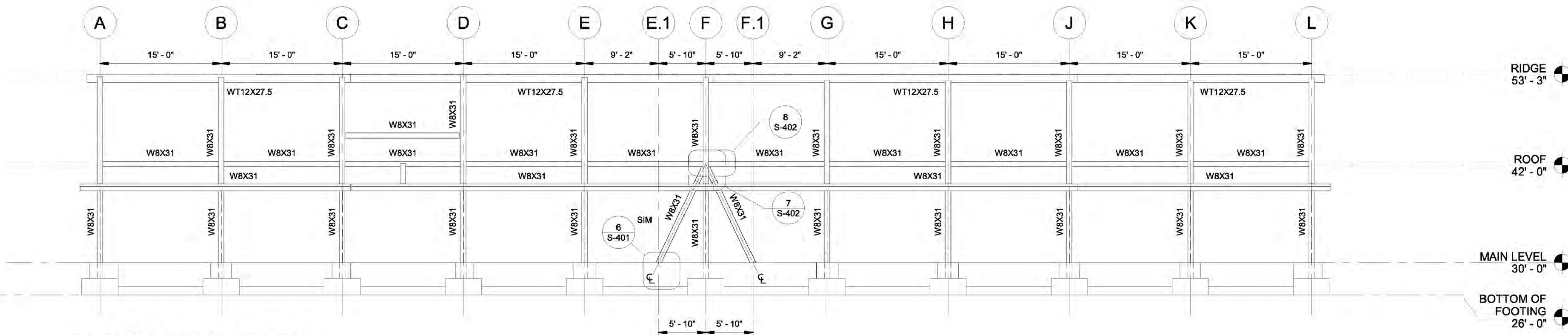
1 EAST EXTERIOR ELEVATION  
S-201 1/8" = 1'-0"



2 WEST EXTERIOR ELEVATION  
S-201 1/8" = 1'-0"



3 NORTH EXTERIOR ELEVATION  
S-201 1/8" = 1'-0"



4 SOUTH EXTERIOR ELEVATION  
S-201 1/8" = 1'-0"

### ELEVATION NOTES

- FOR GENERAL NOTES, SEE DRAWING S-001 THROUGH S-003.
- ROOF LEVEL IS AT WORKING POINT AT INTERSECTION OF CABLE AND GRIDLINES 1 AND 3.
- CABLES ARE 1" DIAMETER AS20-1000 STANDARD STRAND GALVANIZED STRUCTURAL CABLES WITH A MINIMUM BREAKING STRENGTH OF 122 KIPS BY TRIPYRAMID OR APPROVED EQUIVALENT.
- SEE PLAN FOR DIMENSIONS NOT SHOWN.



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ROOFING STEEL SUPERFUND SITE  
VILLAGE OF ROEBLING - FLORENCE TOWNSHIP, NJ  
OPERABLE UNIT 4 - PRESTRETCHER/PRE-TENSIONING SYSTEM BUILDING

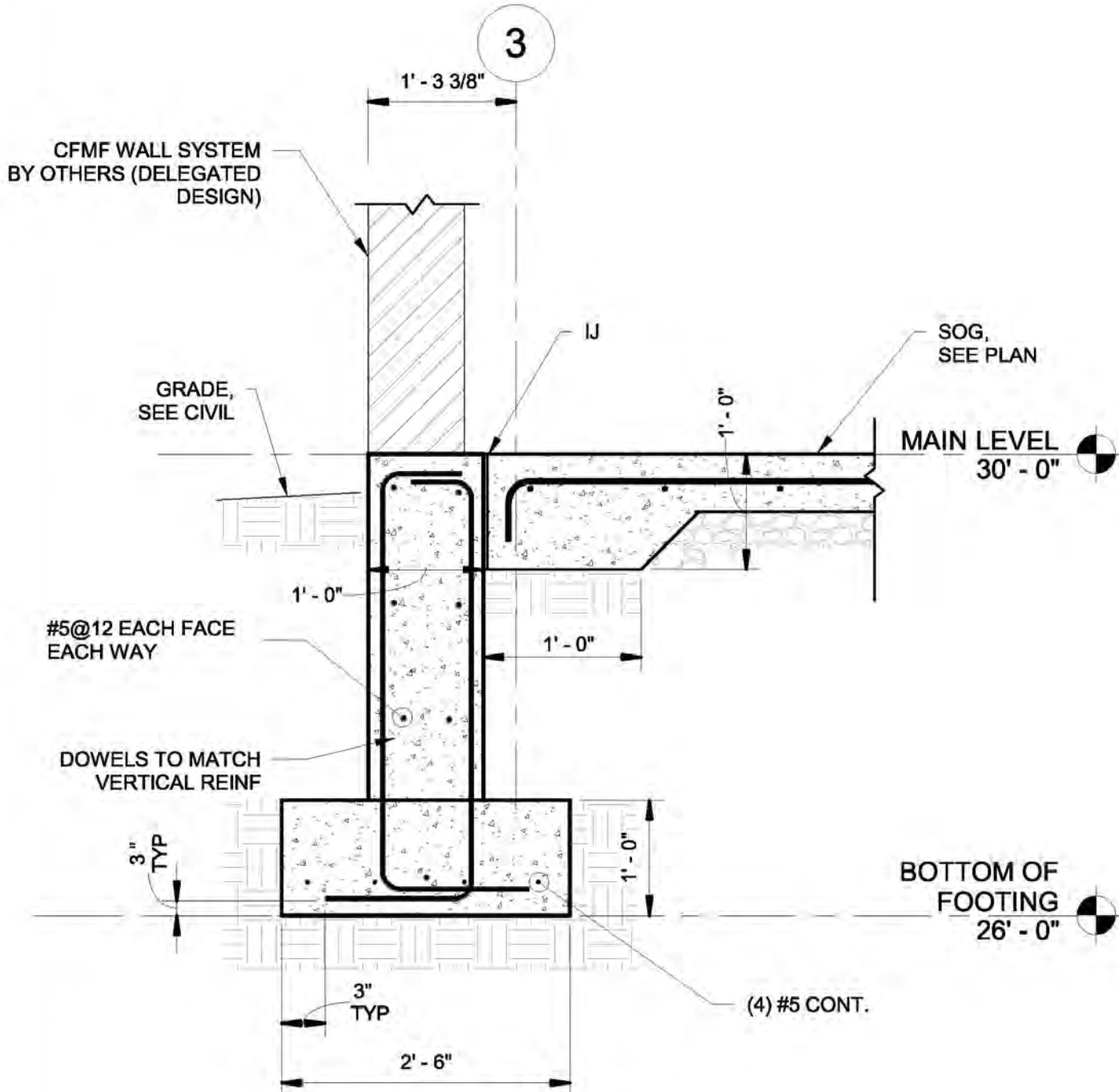
**EXTERIOR ELEVATIONS**



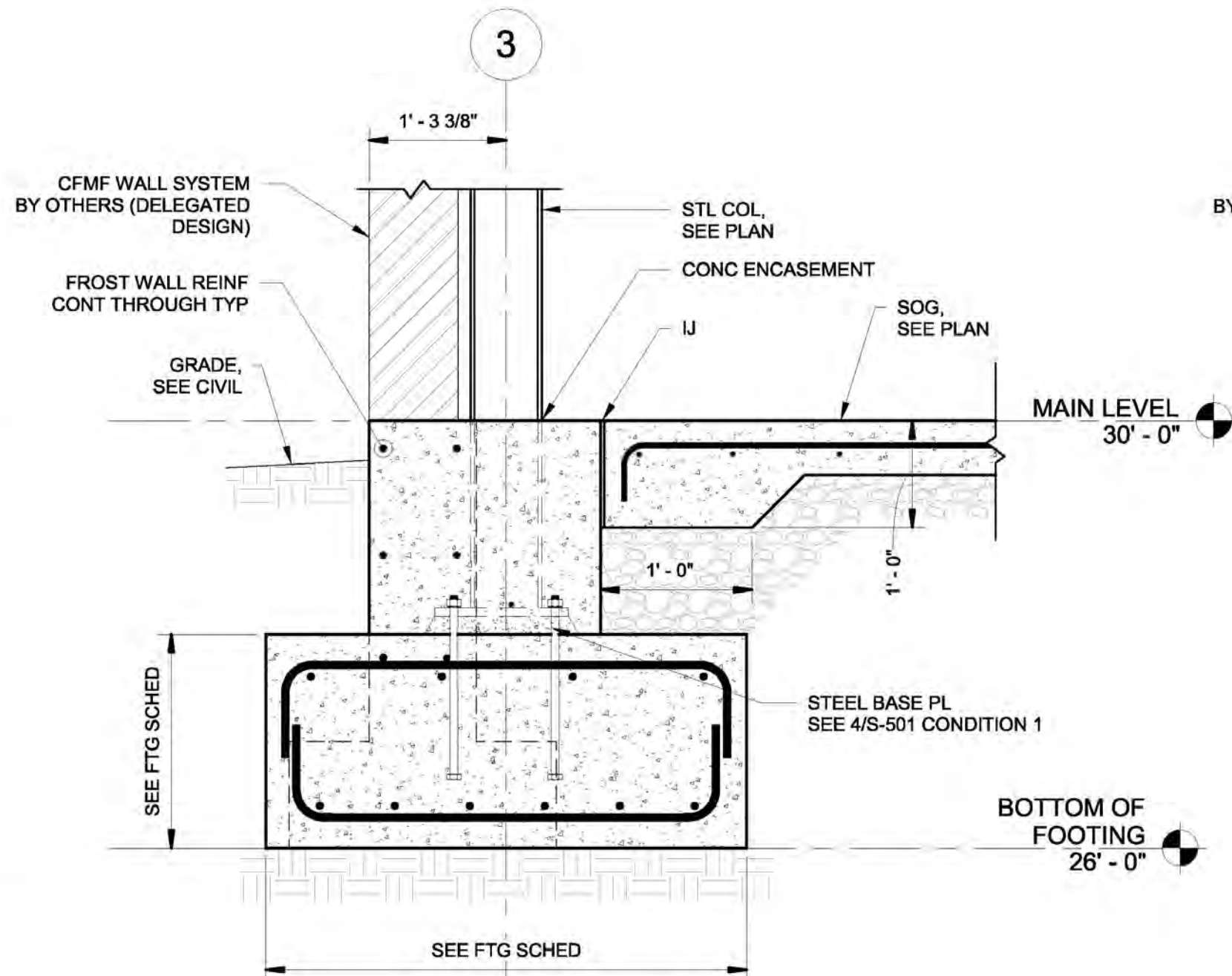
SHEET ID

S-201

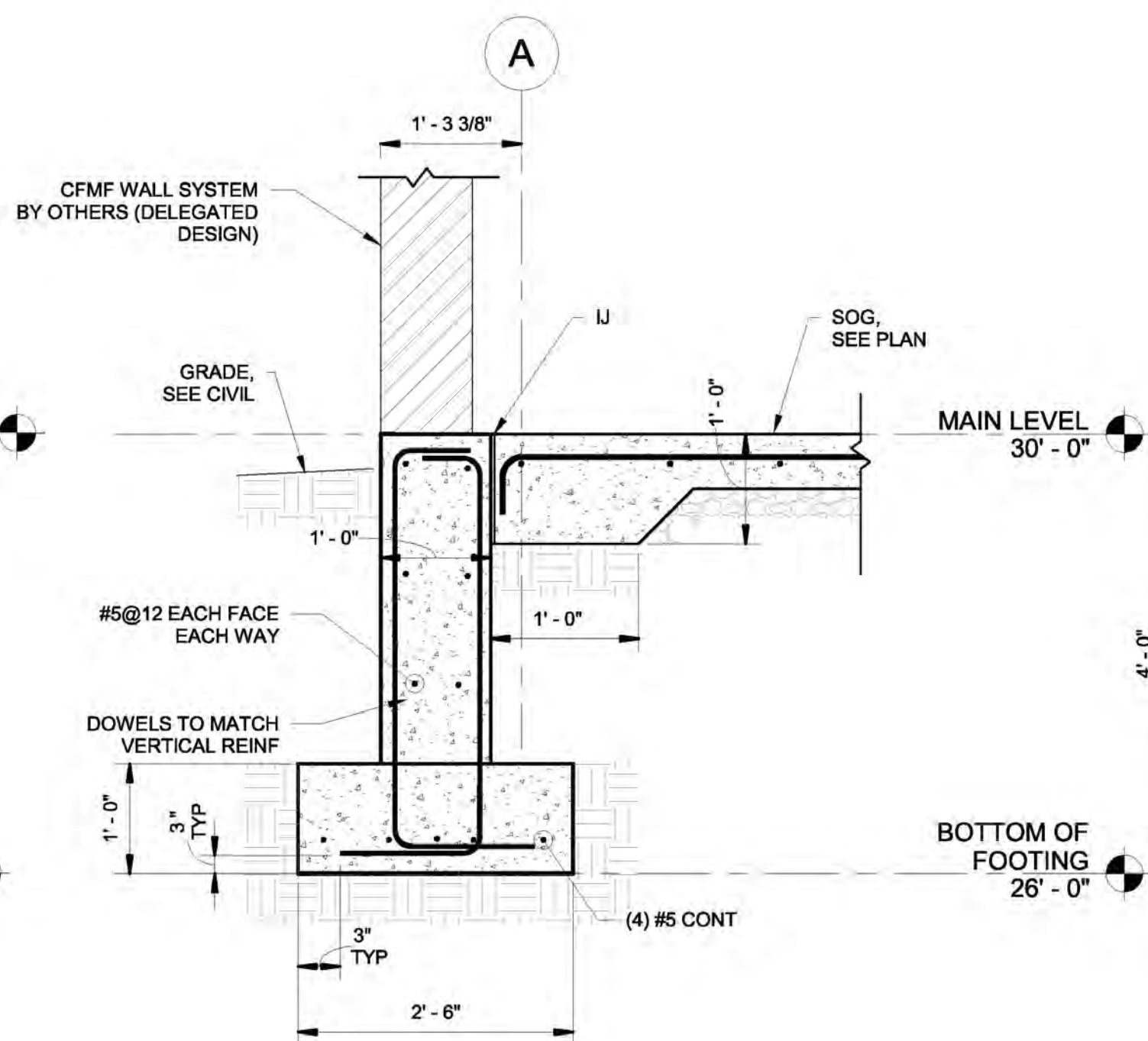




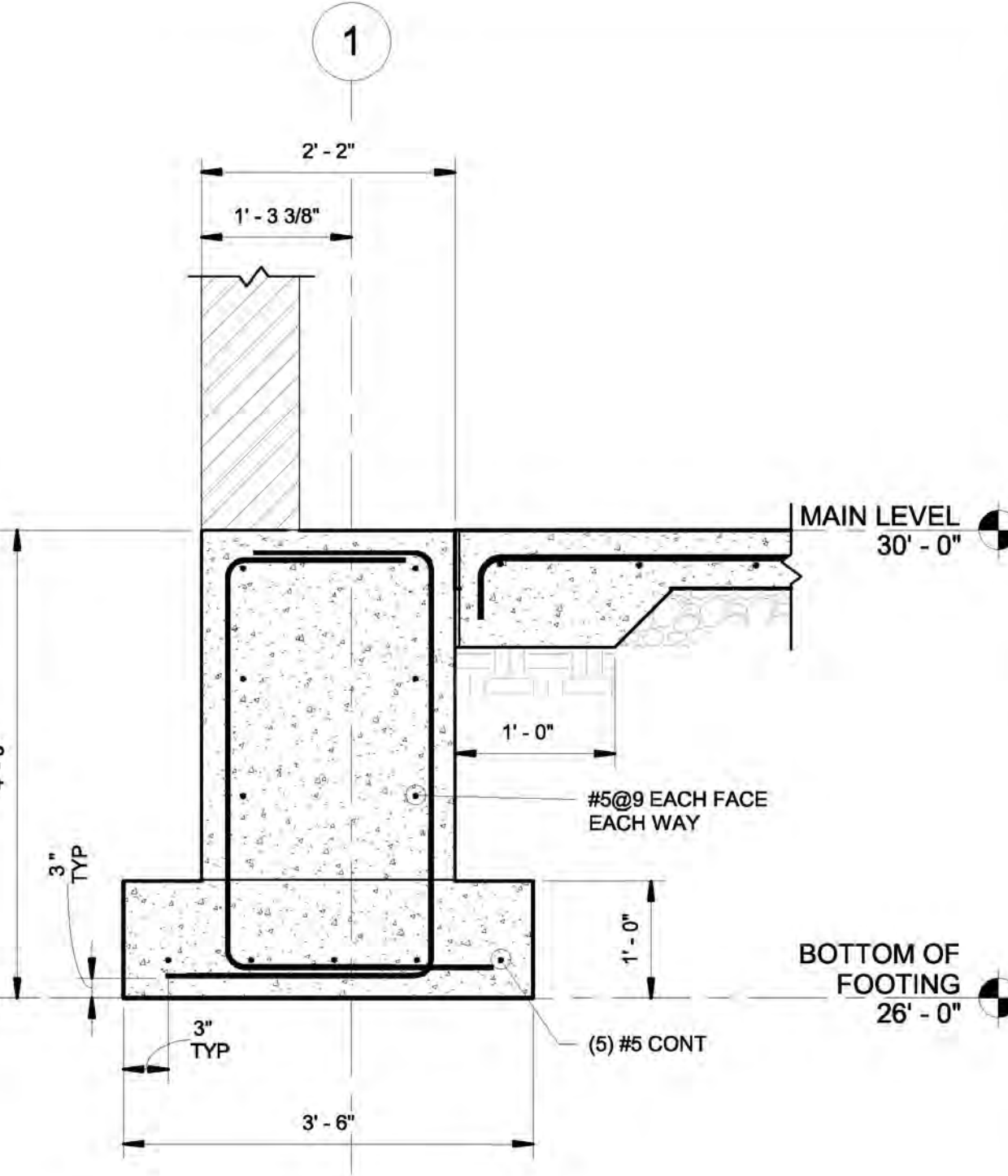
1 TYPICAL SECTION AT N/S FOUNDATION  
S-401 3/4" = 1'-0"



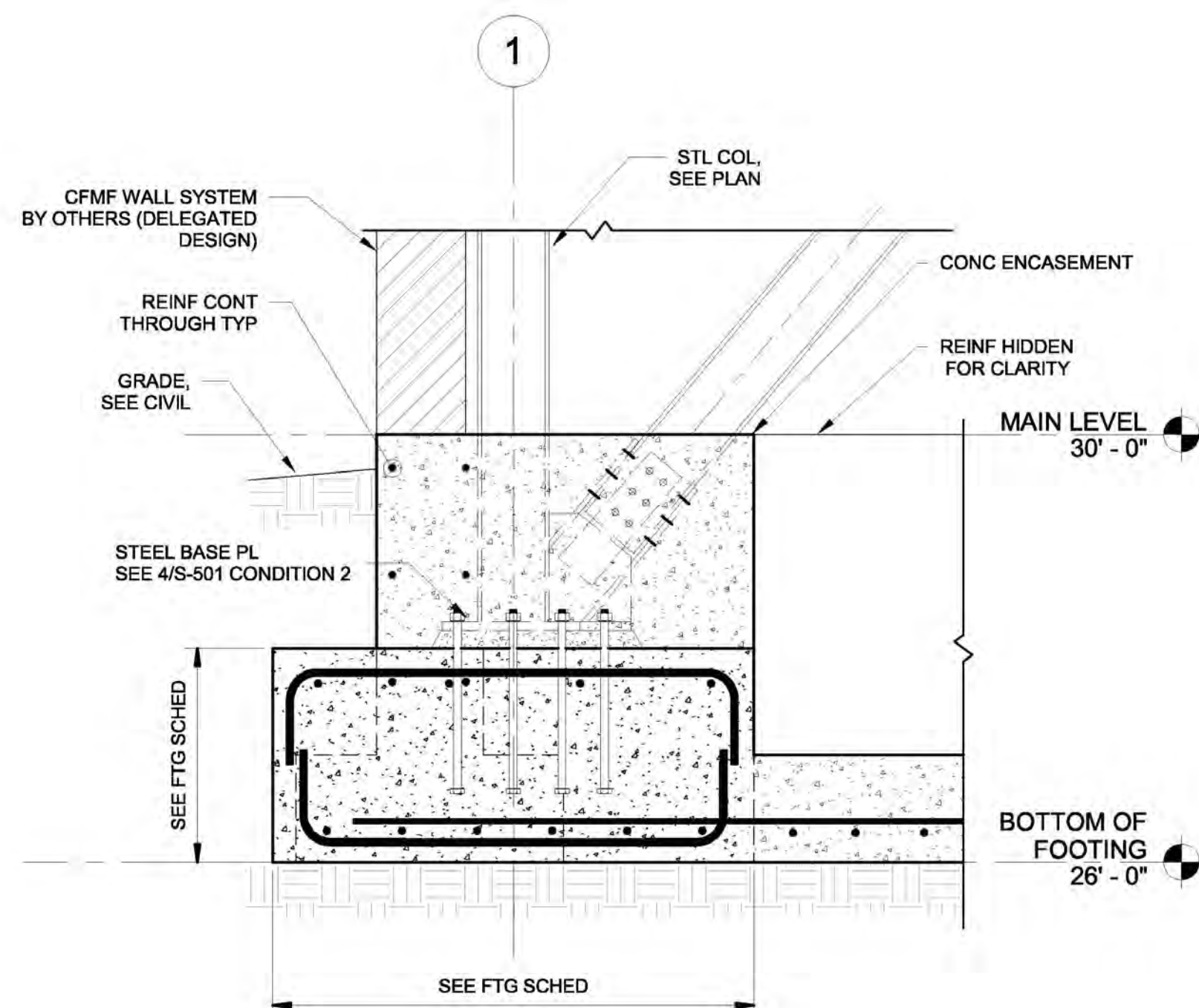
2 TYPICAL SECTION AT INT COLUMN  
S-401 3/4" = 1'-0"



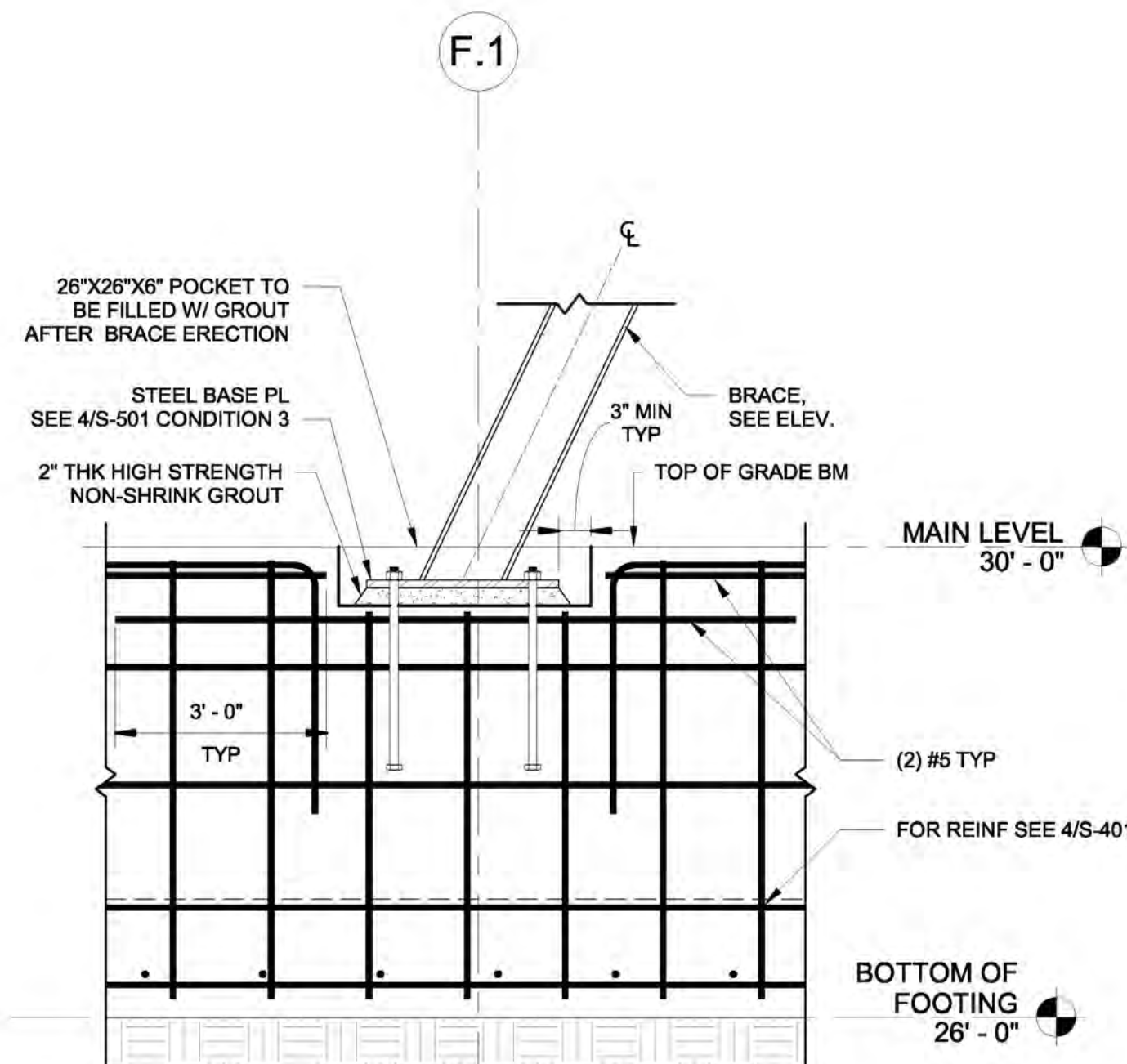
3 TYPICAL SECTION AT E/W FOUNDATION  
S-401 3/4" = 1'-0"



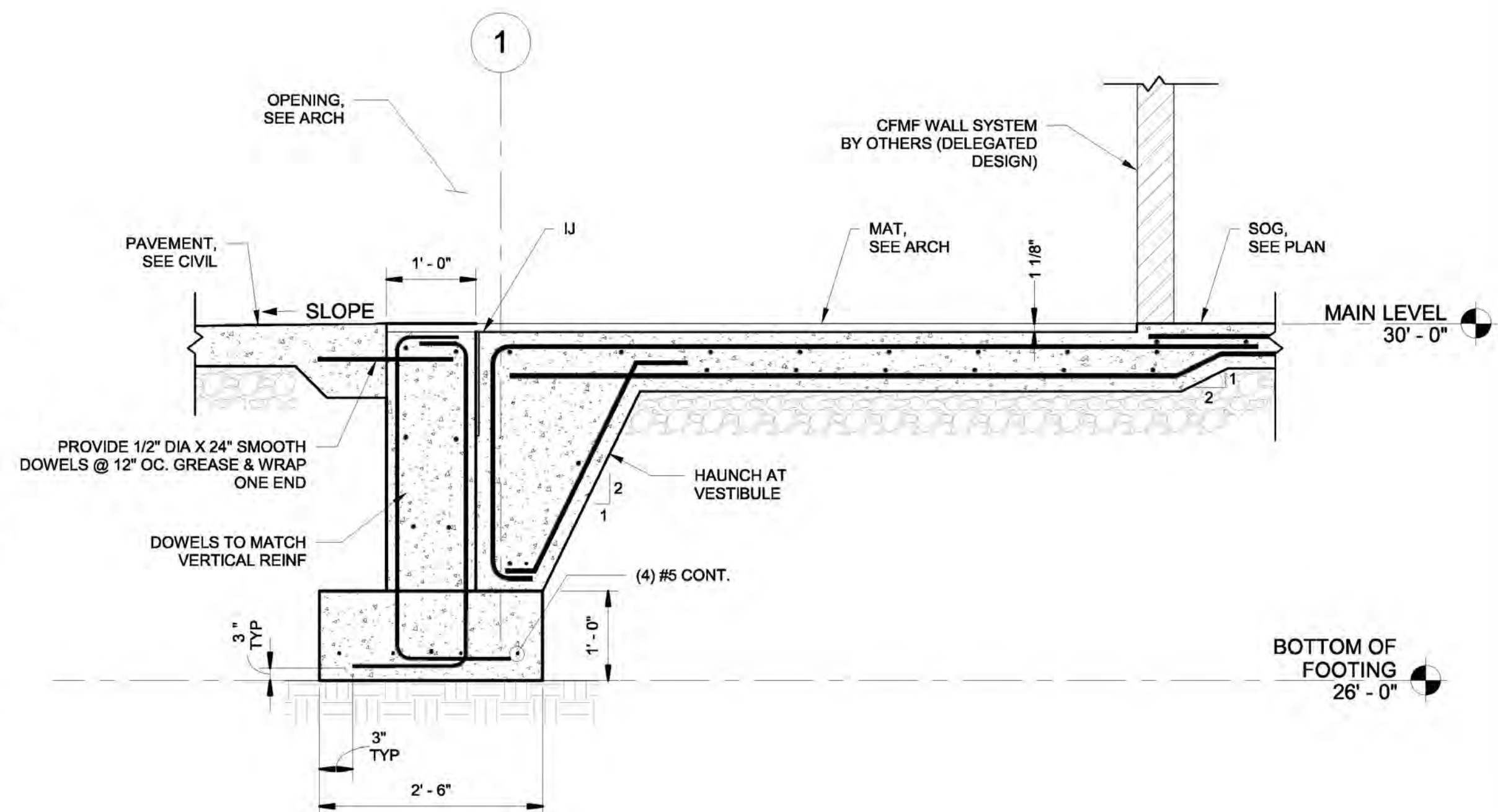
4 TYPICAL SECTION AT WIDE GRADE BEAM  
S-401 3/4" = 1'-0"



5 TYPICAL SECTION AT EXT COLUMN  
S-401 3/4" = 1'-0"



6 TYPICAL BRACE TO GRADE BEAM CONNECTION  
S-401 3/4" = 1'-0"



7 VESTIBULE FOUNDATION SECTION  
S-401 3/4" = 1'-0"



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MARK	DATE	DESCRIPTION

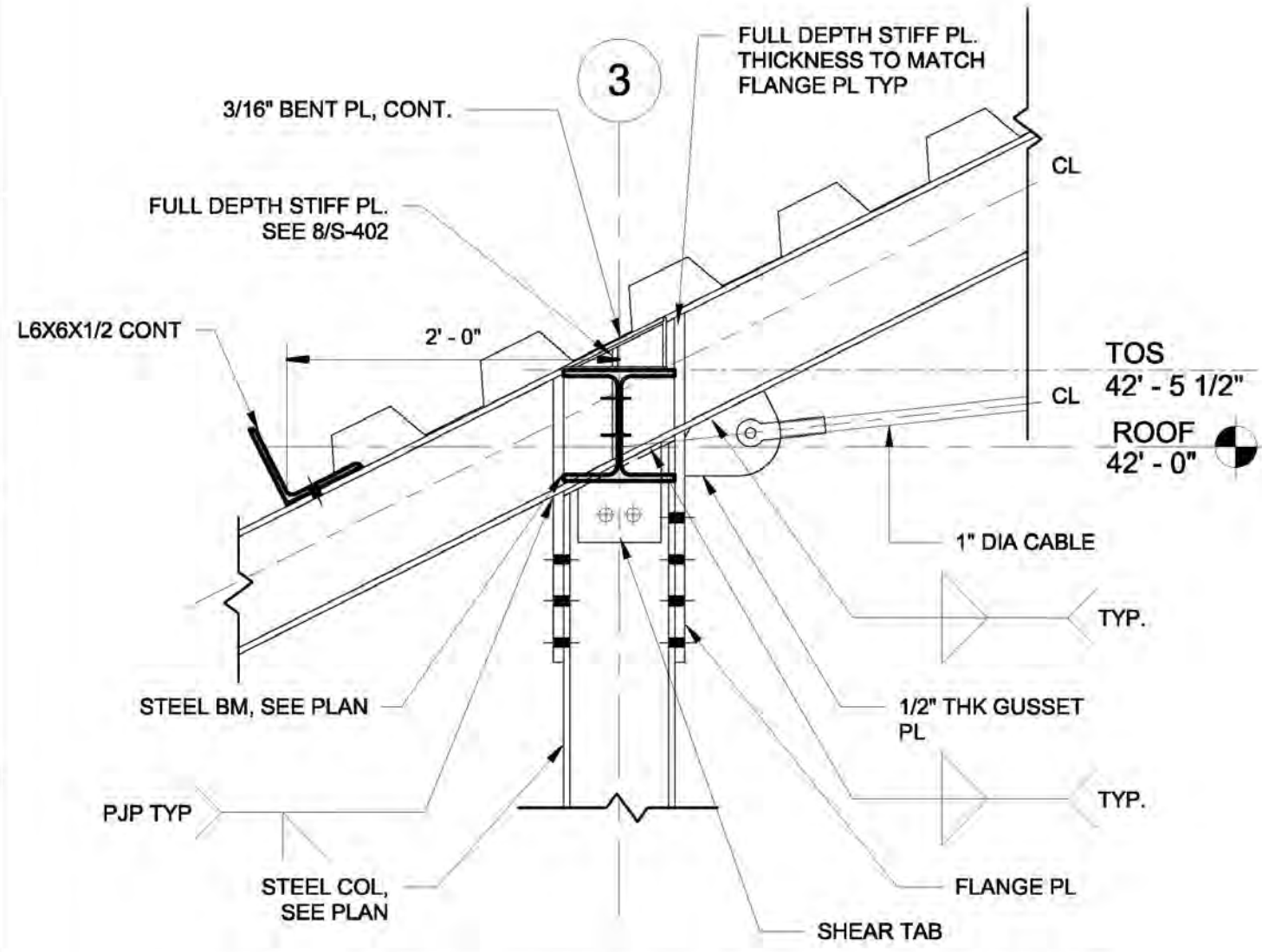
DESIGNED BY: SA	DATE: 09/24/2021	PROJECT NO.: 60620247
DRAWN BY: AK	CHECKED BY: ME	APPROVED BY: CH
U.S. ARMY CORPS OF ENGINEERS KANSAS CITY DISTRICT	ACCOM 100 RED SCHOOLHOUSE RD CHESTNUT RIDGE, NY	

ROEBLING STEEL SUPERFUND SITE  
VILLAGE OF ROEBLING - FLORENCE TOWNSHIP, NJ  
OPERABLE UNIT 4 - PRESTRETCHER/PRE-TENSIONING SYSTEM BUILDING

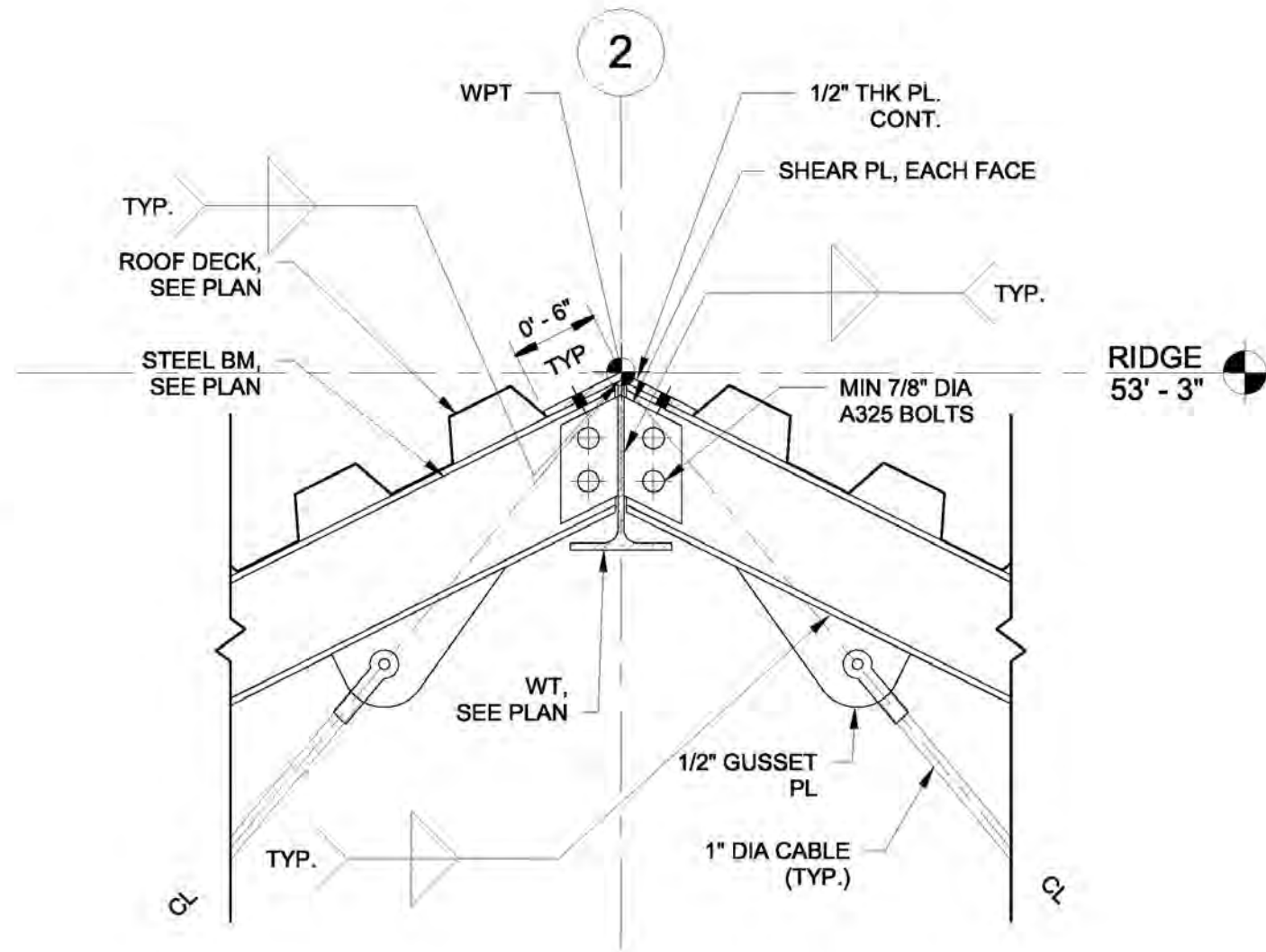
FOUNDATION SECTIONS



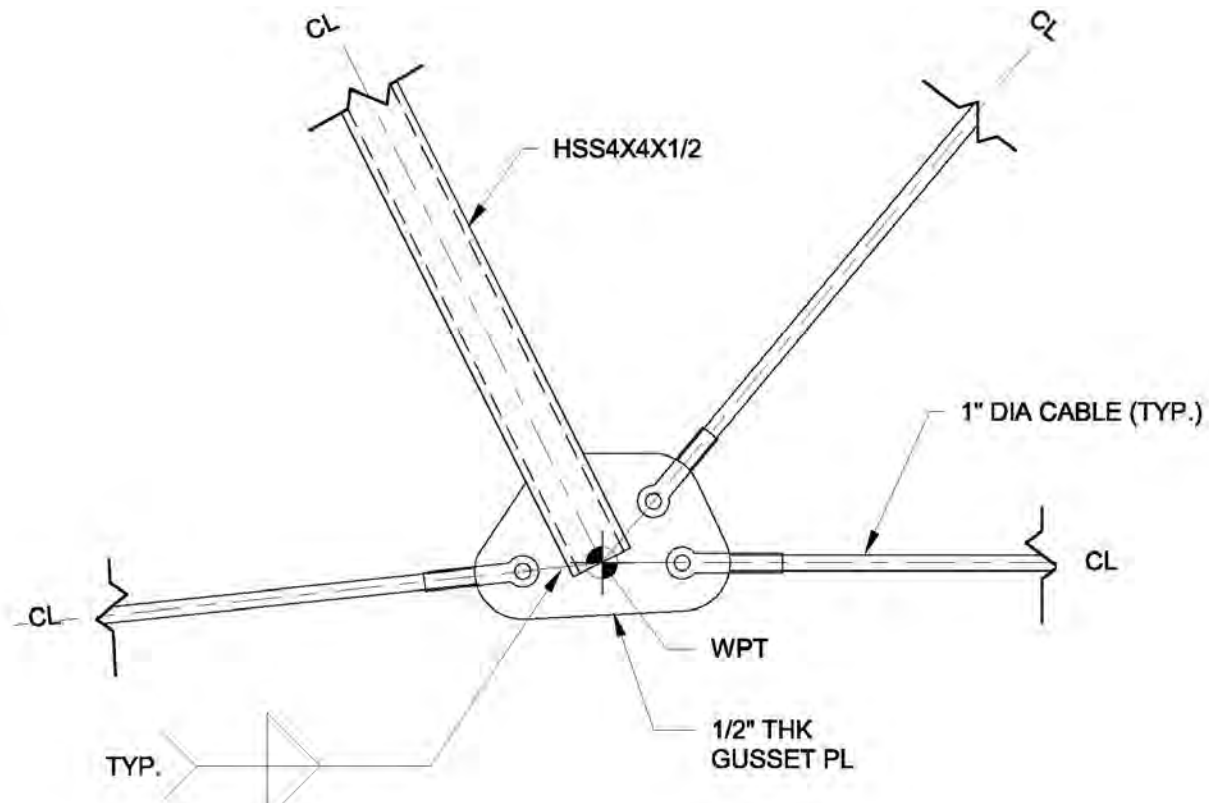
SHEET ID  
S-401



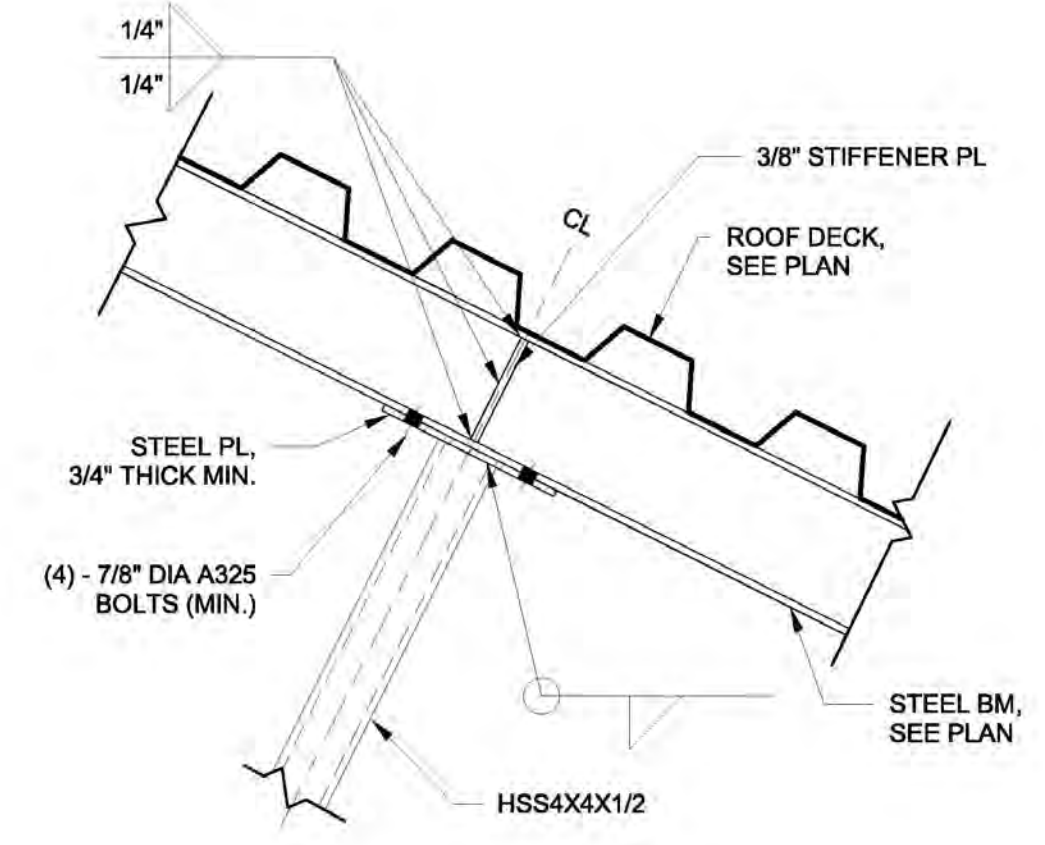
1	COLUMN TO RAFTER CONNECTION AT INT BRACE
S-402	1" = 1'-0"



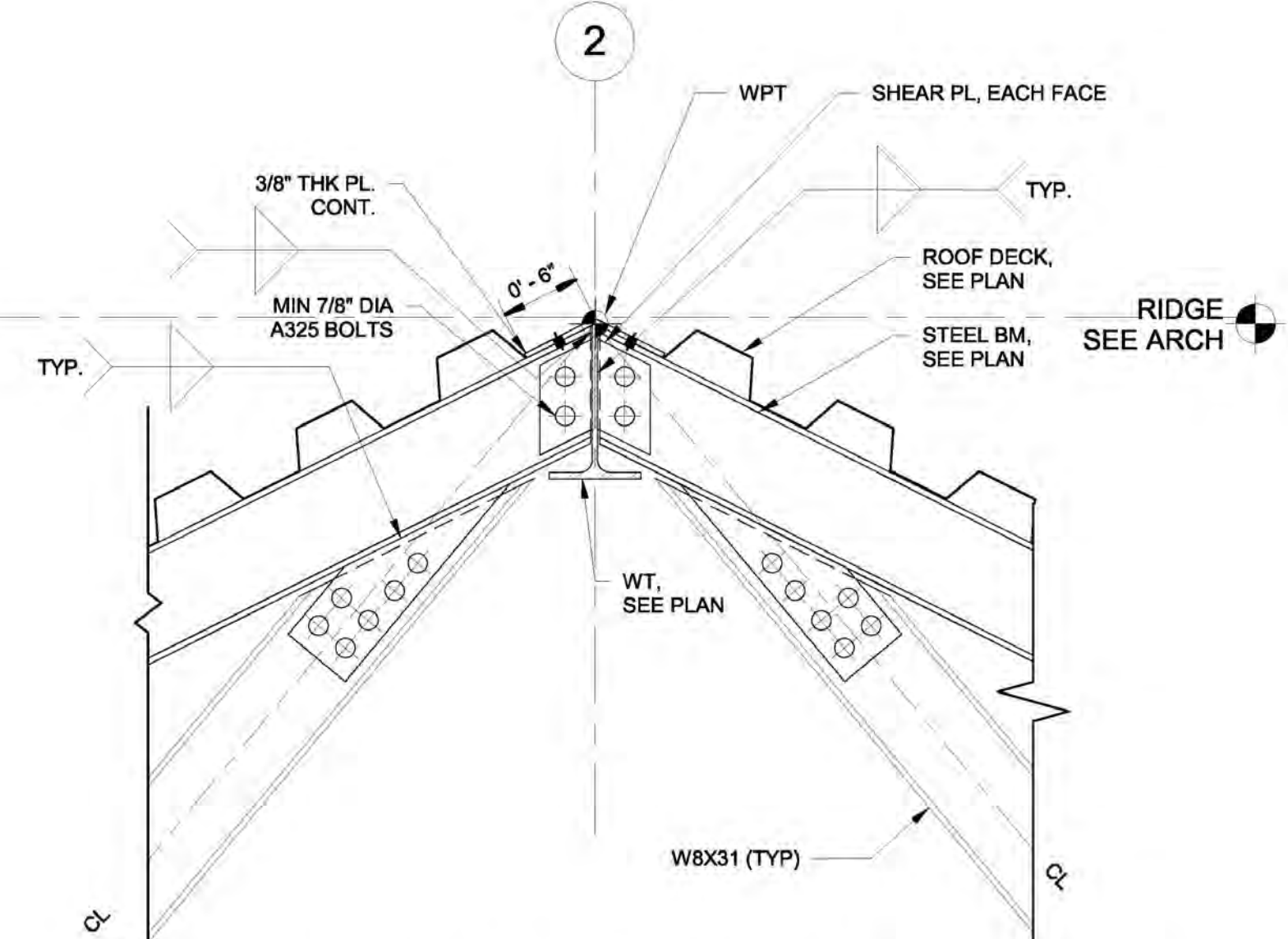
2	RIDGE AT INTERIOR RAFTER
S-402	1" = 1'-0"



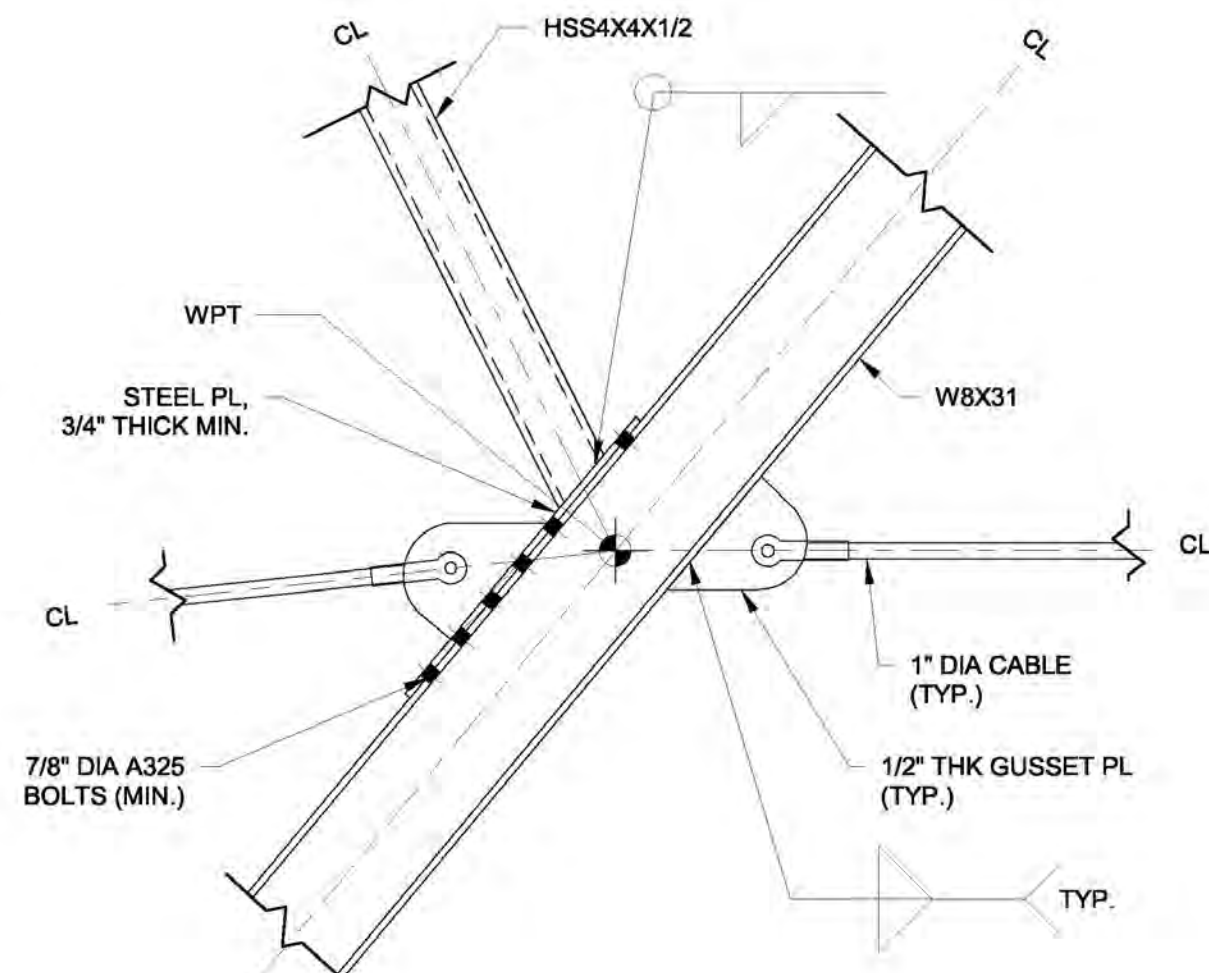
3	BRACE AT INT CABLE TRUSS
S-402	1" = 1'-0"



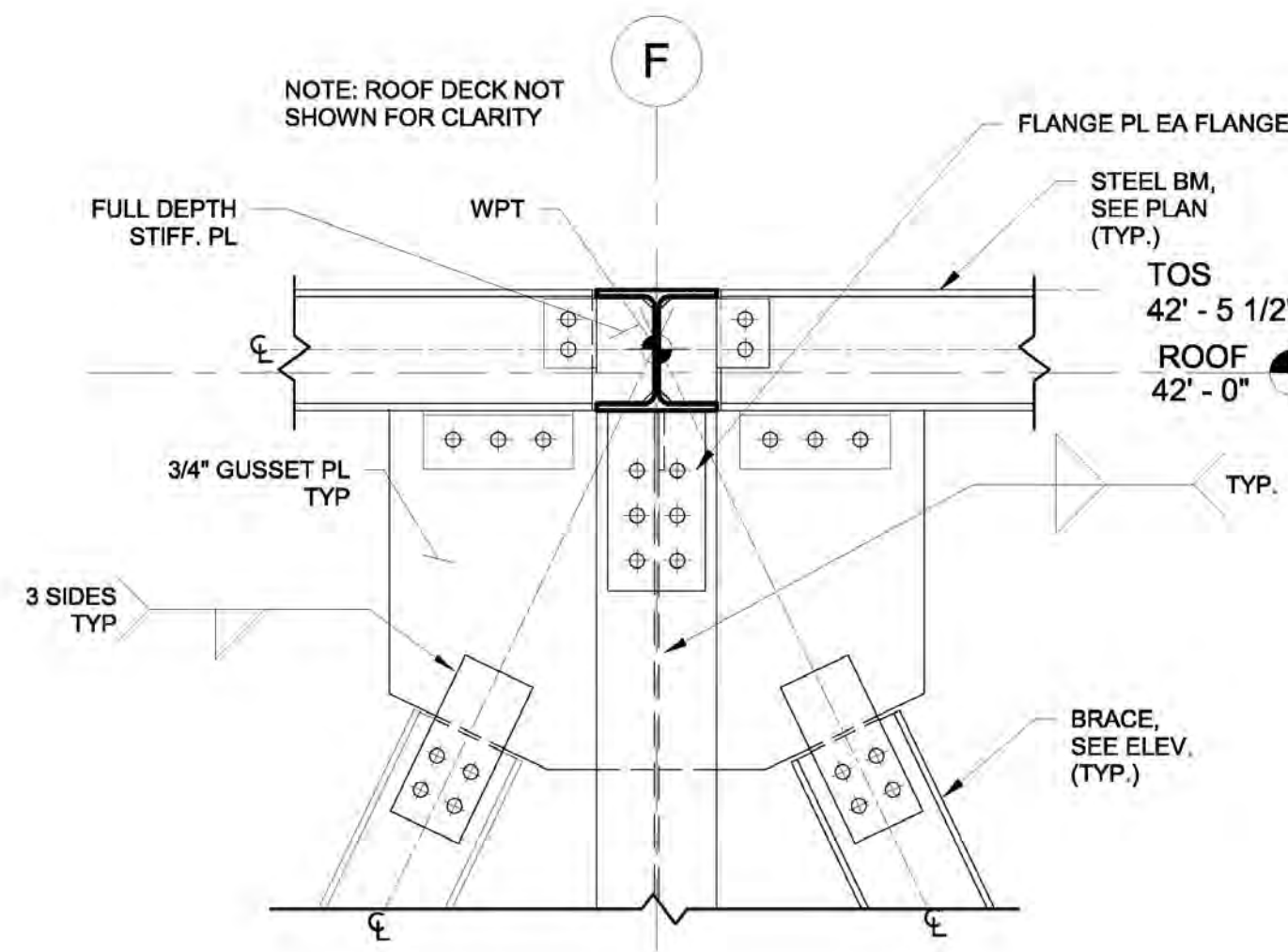
4	BRACE TO RAFTER CONNECTION
S-402	1" = 1'-0"



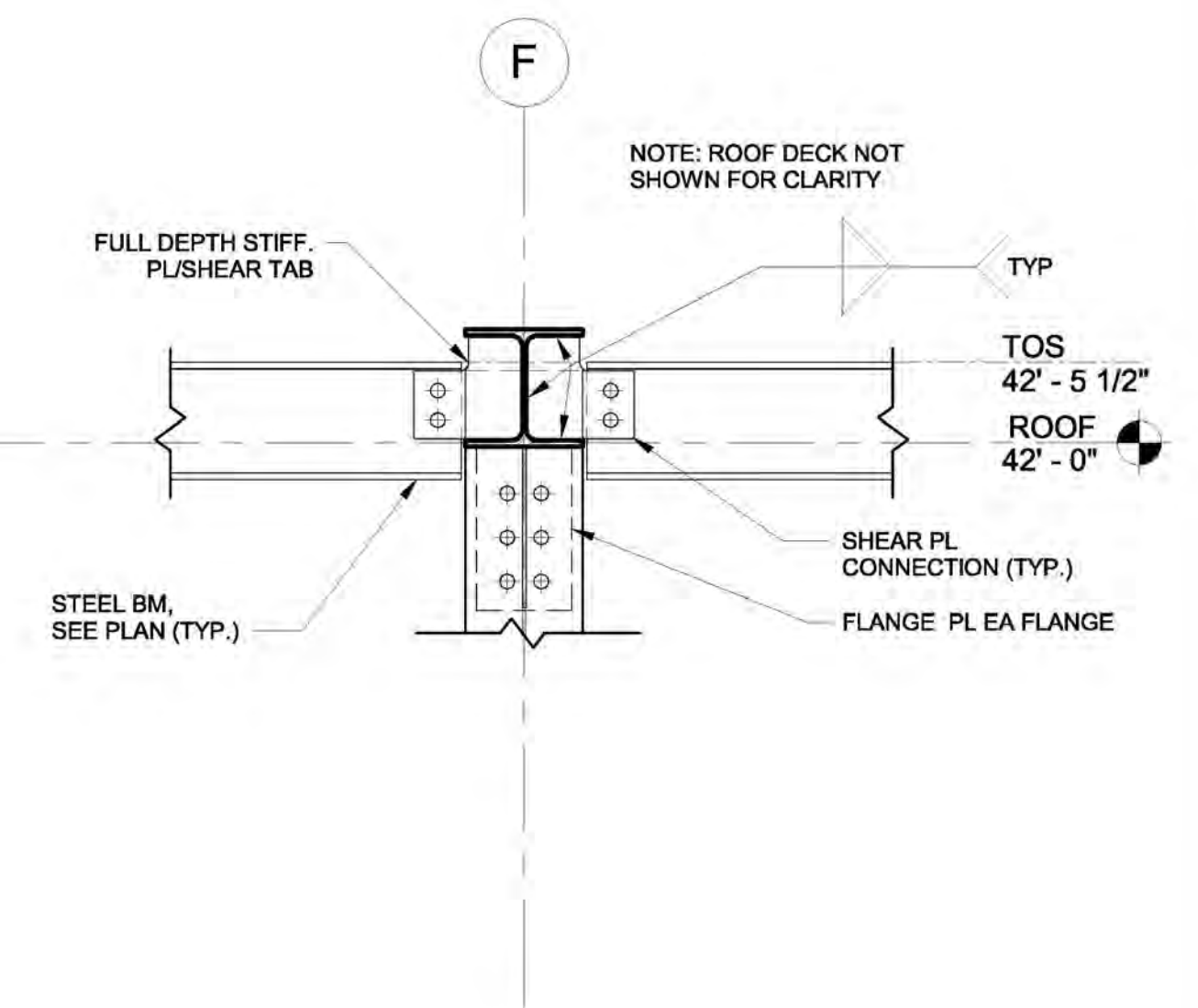
5	RIDGE AT EXTERIOR RAFTER
S-402	1" = 1'-0"



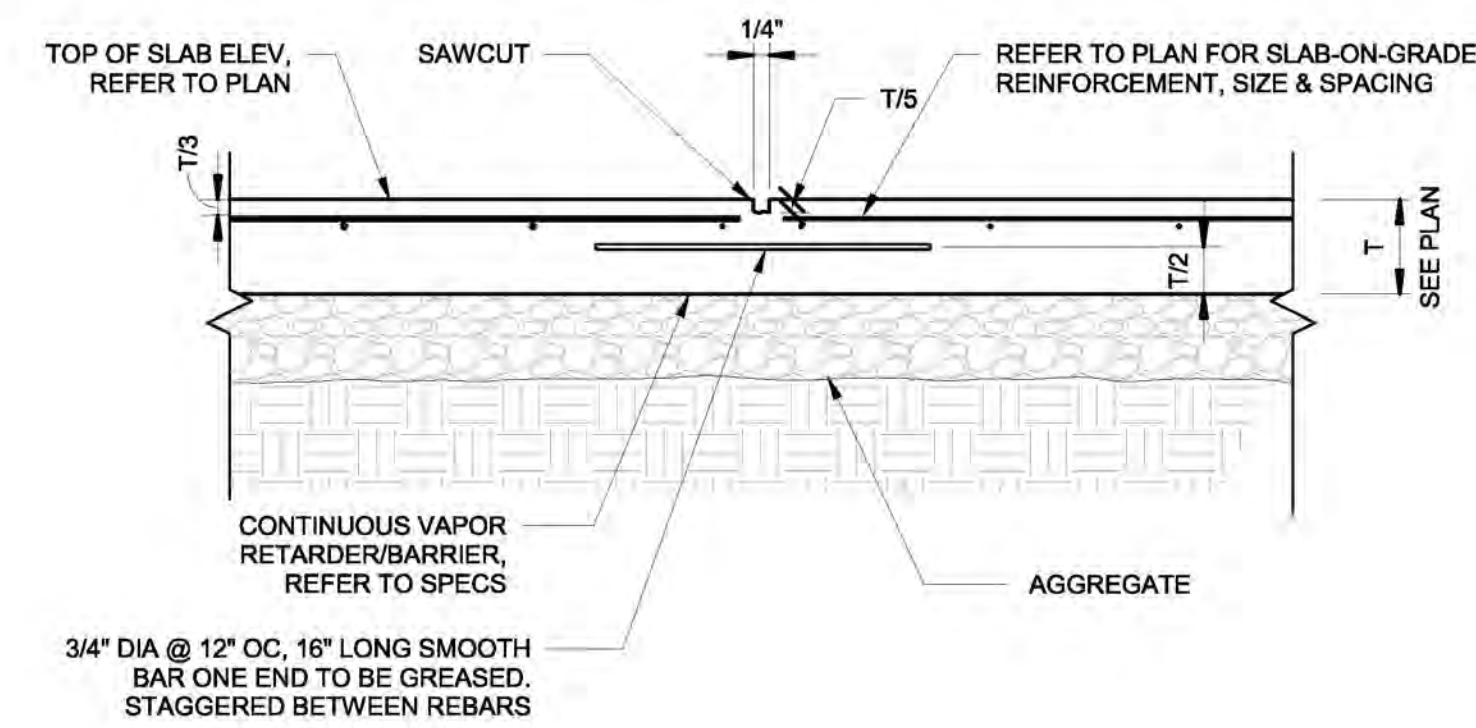
6	BRACES AT EXT CABLE TRUSS
S-402	1" = 1'-0"



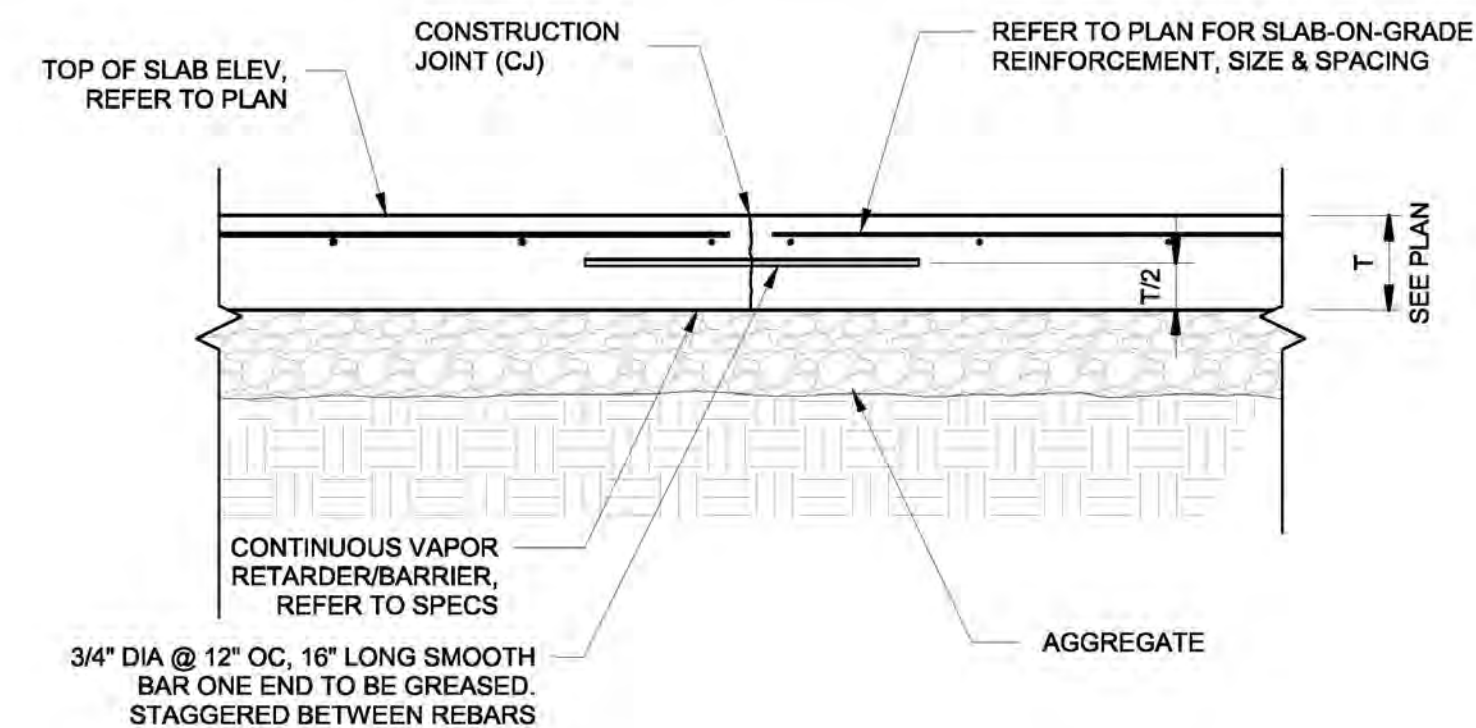
7	BRACE TO COLUMN CONNECTION AT INT BRACE
S-402	1" = 1'-0"



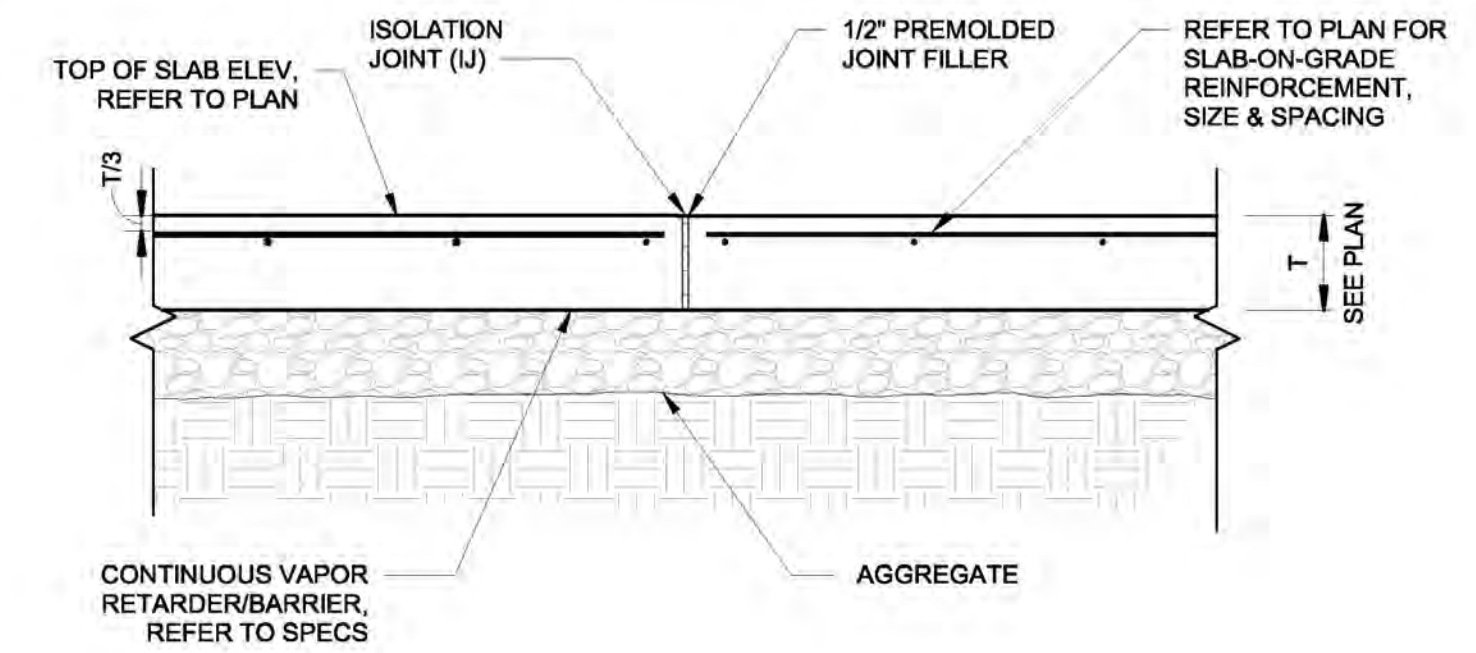
8	TYPICAL BEAM AT RAFTER
S-402	1" = 1'-0"



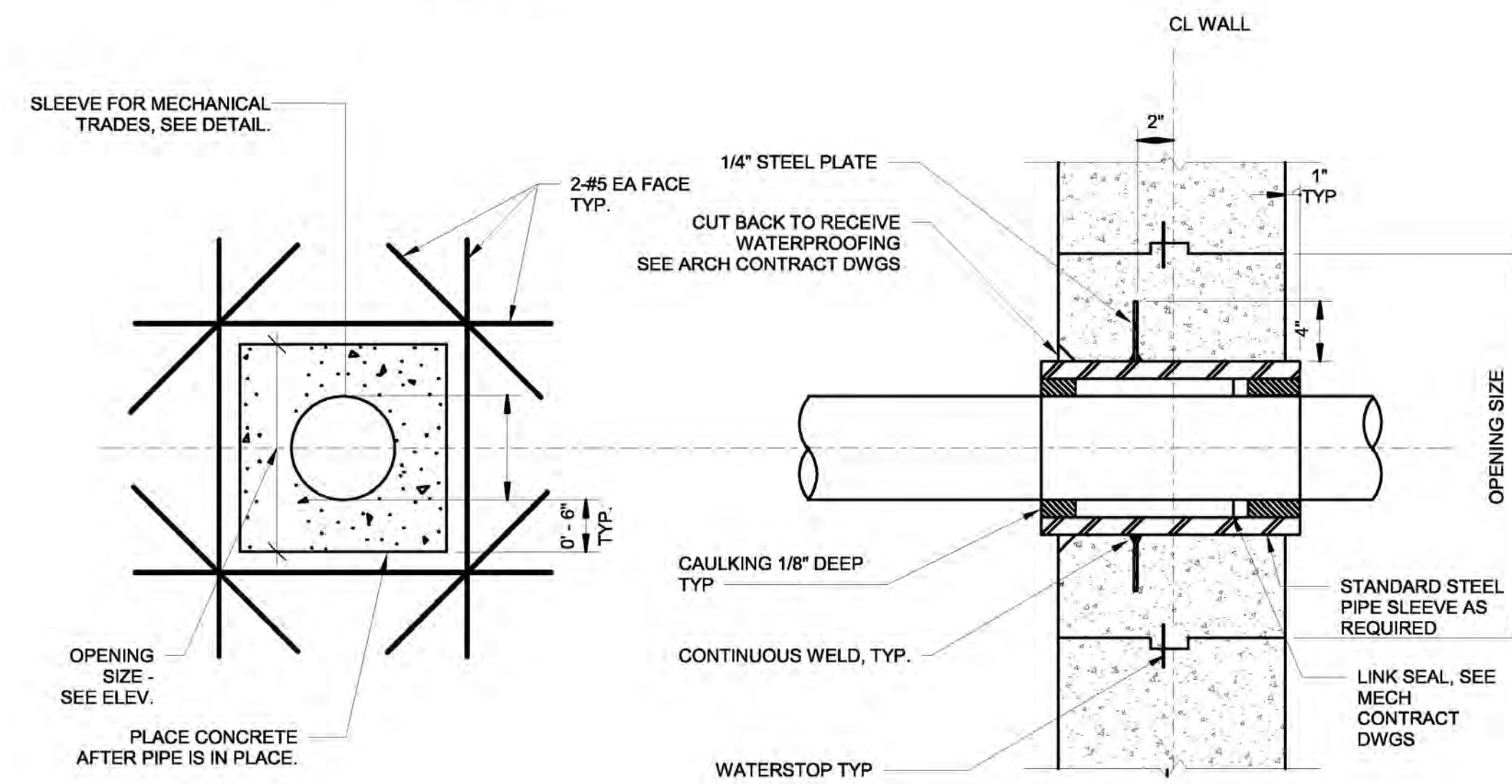
1	TYP SLAB-ON-GRADE CONTROL JT SECTION
S-501	1" = 1'-0"



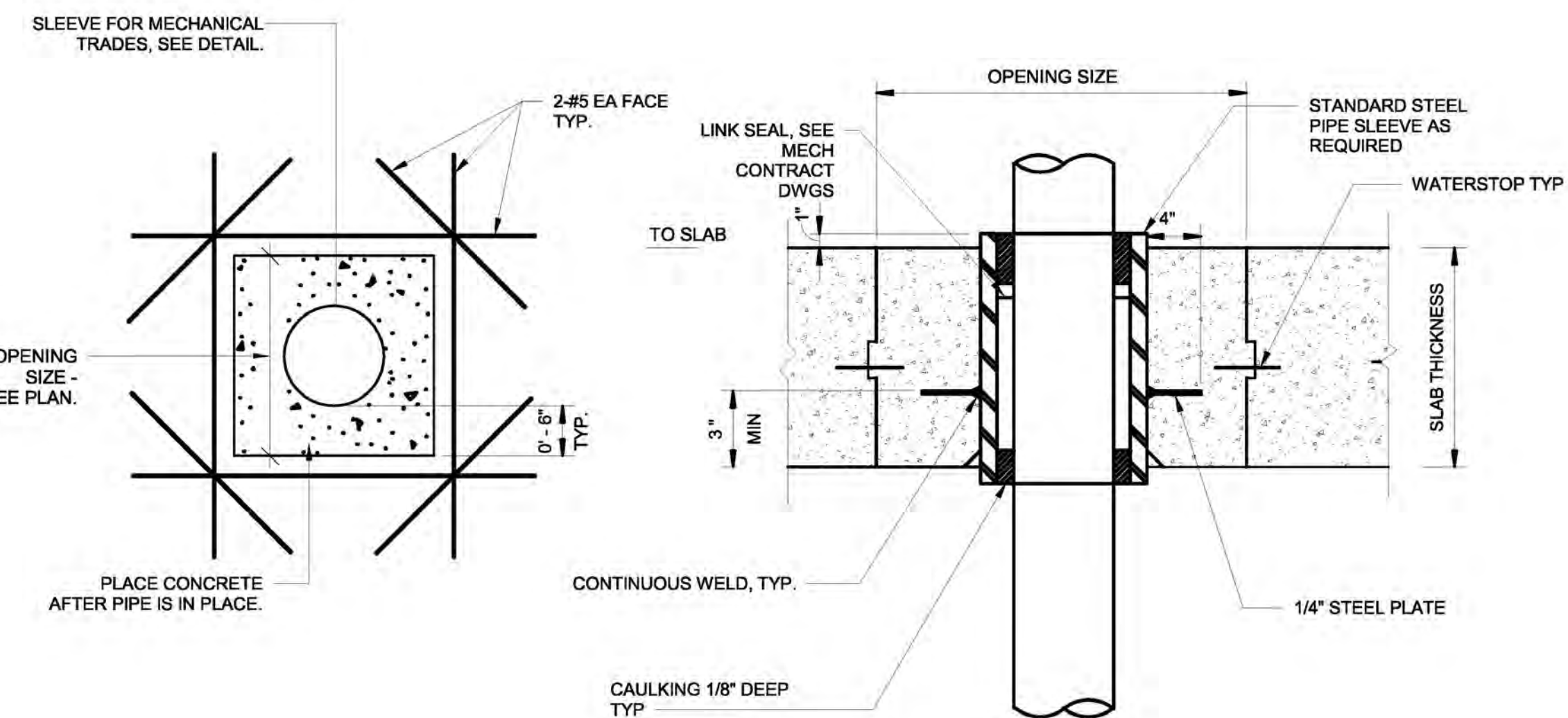
2	TYP SLAB-ON-GRADE CONSTRUCTION JT SECTION
S-501	1" = 1'-0"



3	TYP SLAB-ON-GRADE ISOLATION JT SECTION
S-501	1" = 1'-0"

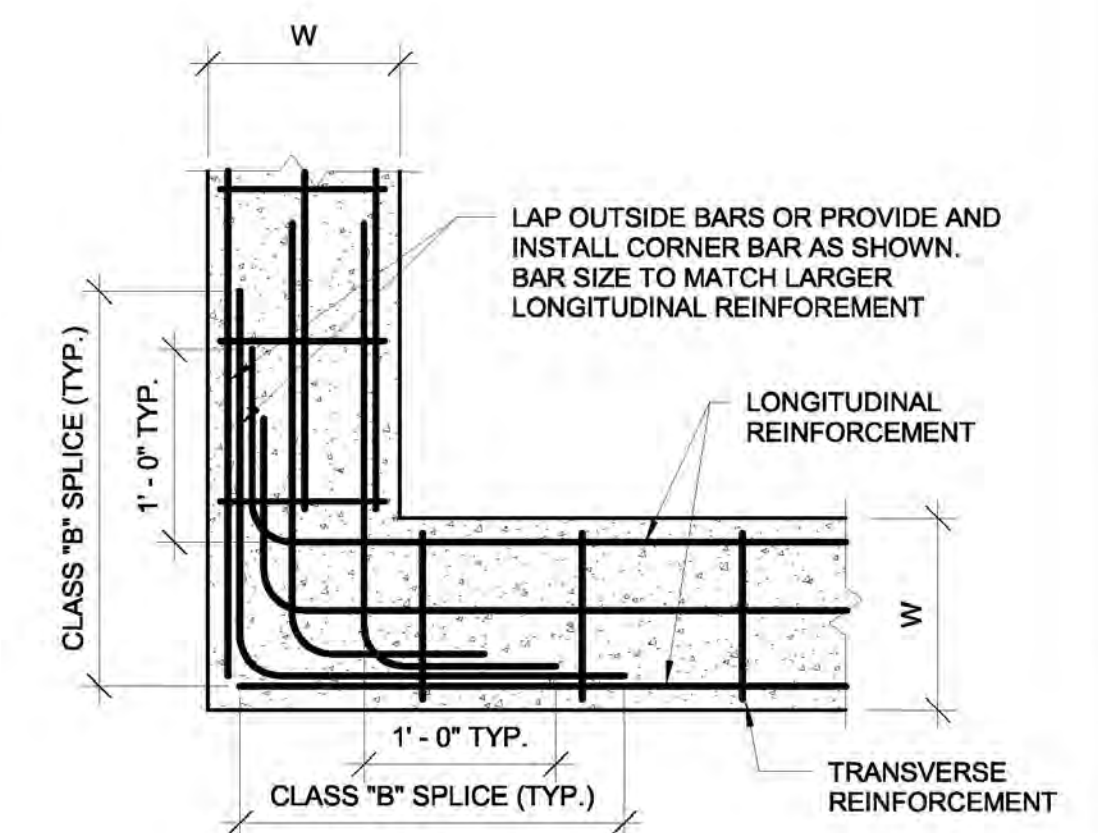


BOX OPENING AT FOUNDATION WALL



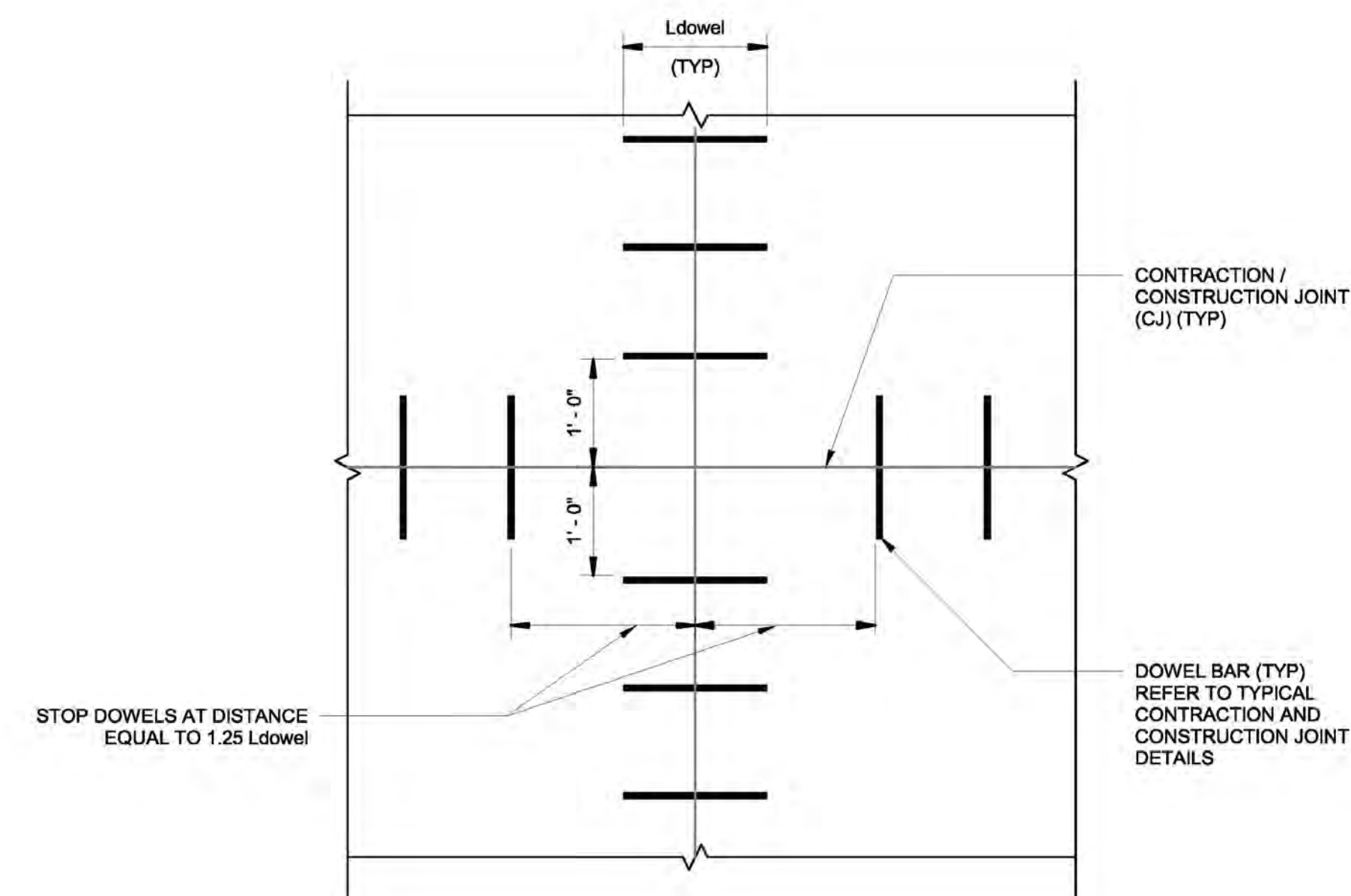
BOX OPENING AT SLAB

### DETAIL OF SLEEVE THRU SLAB



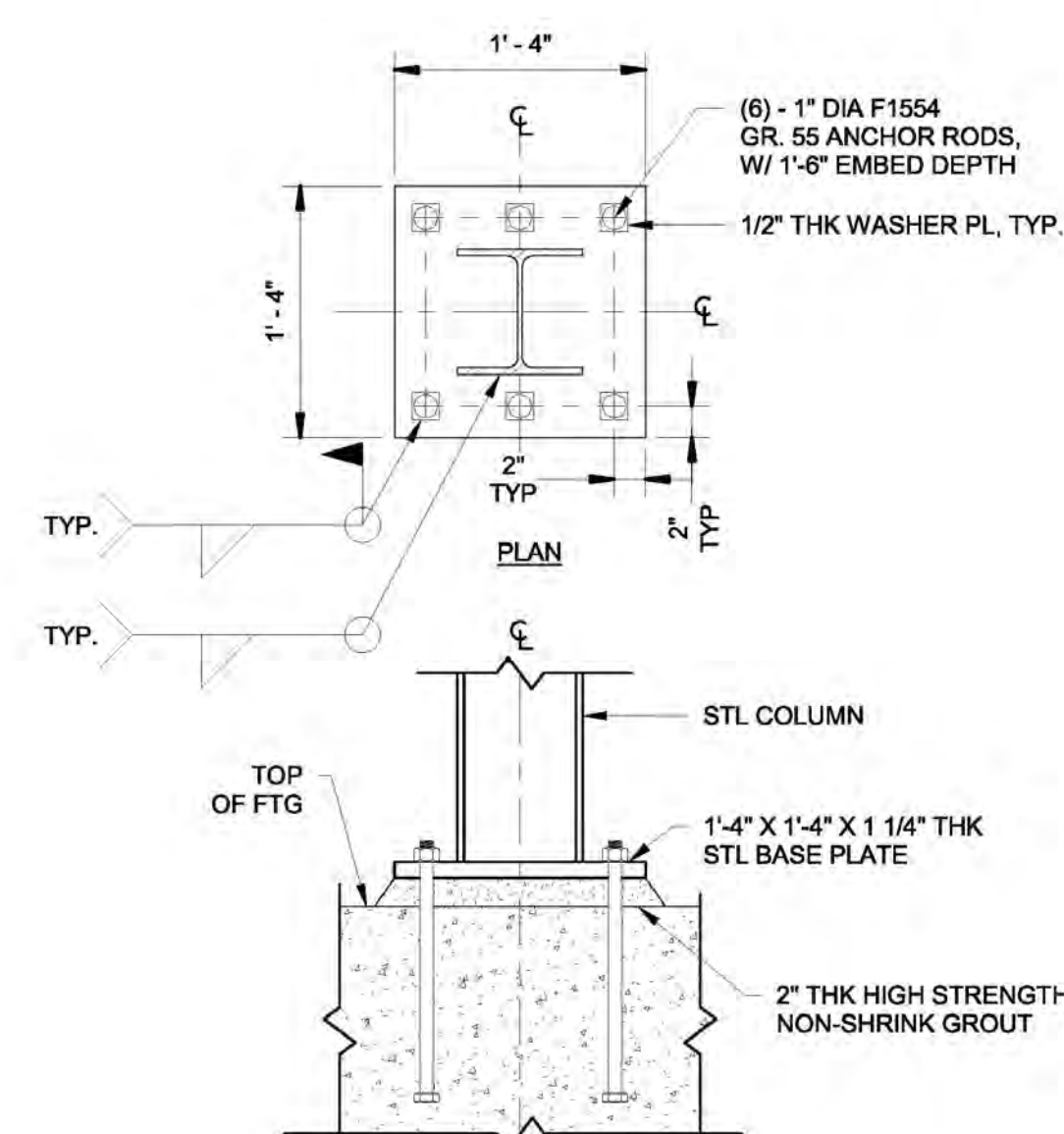
6	LONGITUDINAL REINFORCEMENT (TOP) OF CONCRETE GRADE BEAMS AT CORNERS
S-501	1" = 1'-0"

8	OPENING IN FOUNDATION WALLS
S-501	3/4" = 1'-0"

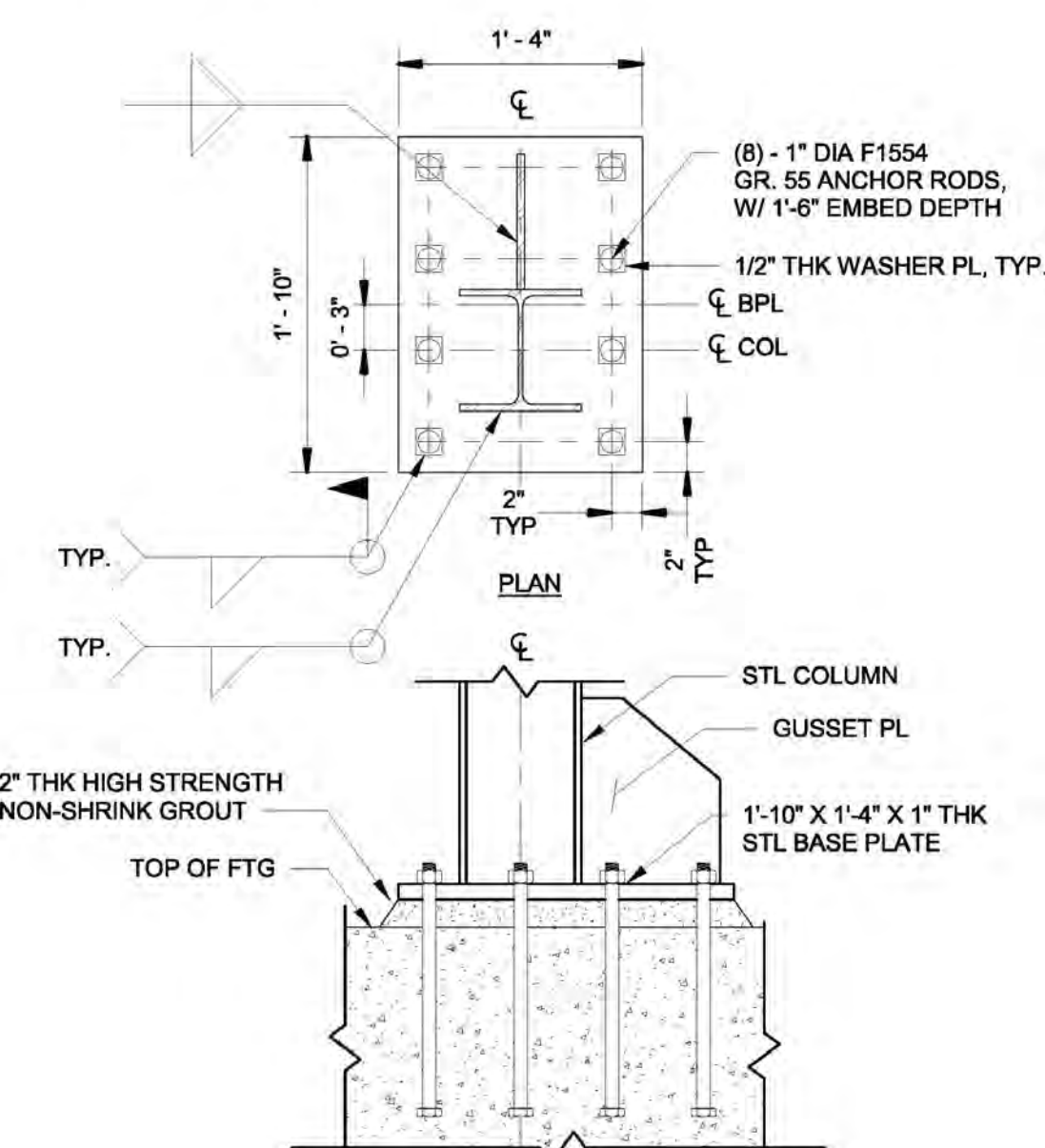


5	SLAB-ON-GRADE DETAIL AT CONTRACTION/CONSTRUCTION JT INTERSECTION
S-501	3/4" = 1'-0"

7	OPENING IN CONCRETE SLAB
S-501	3/4" = 1'-0"

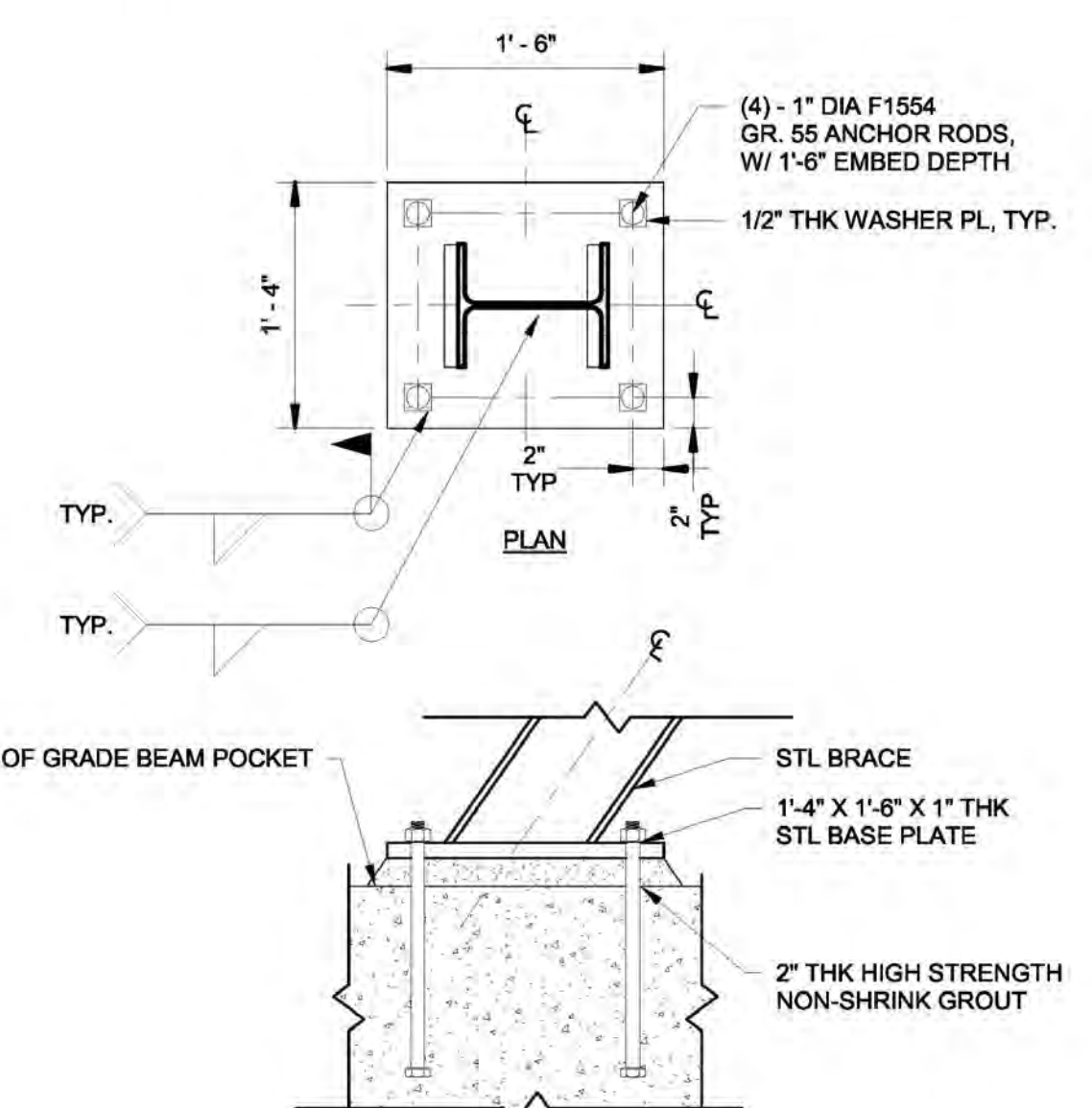


SECTION  
**CONDITION 1**



SECTION  
**CONDITION 2**

4	COLUMN/BRACE BASE PLATE DETAILS_V2
S-501	1" = 1'-0"



SECTION

**CONDITION 3**

[illegible]

[illegible]

SA	09/24/2021
DRAWN BY: AK	PROJECT NO.: 60520247
CHECKED BY: ME	
APPROVED BY: CU	

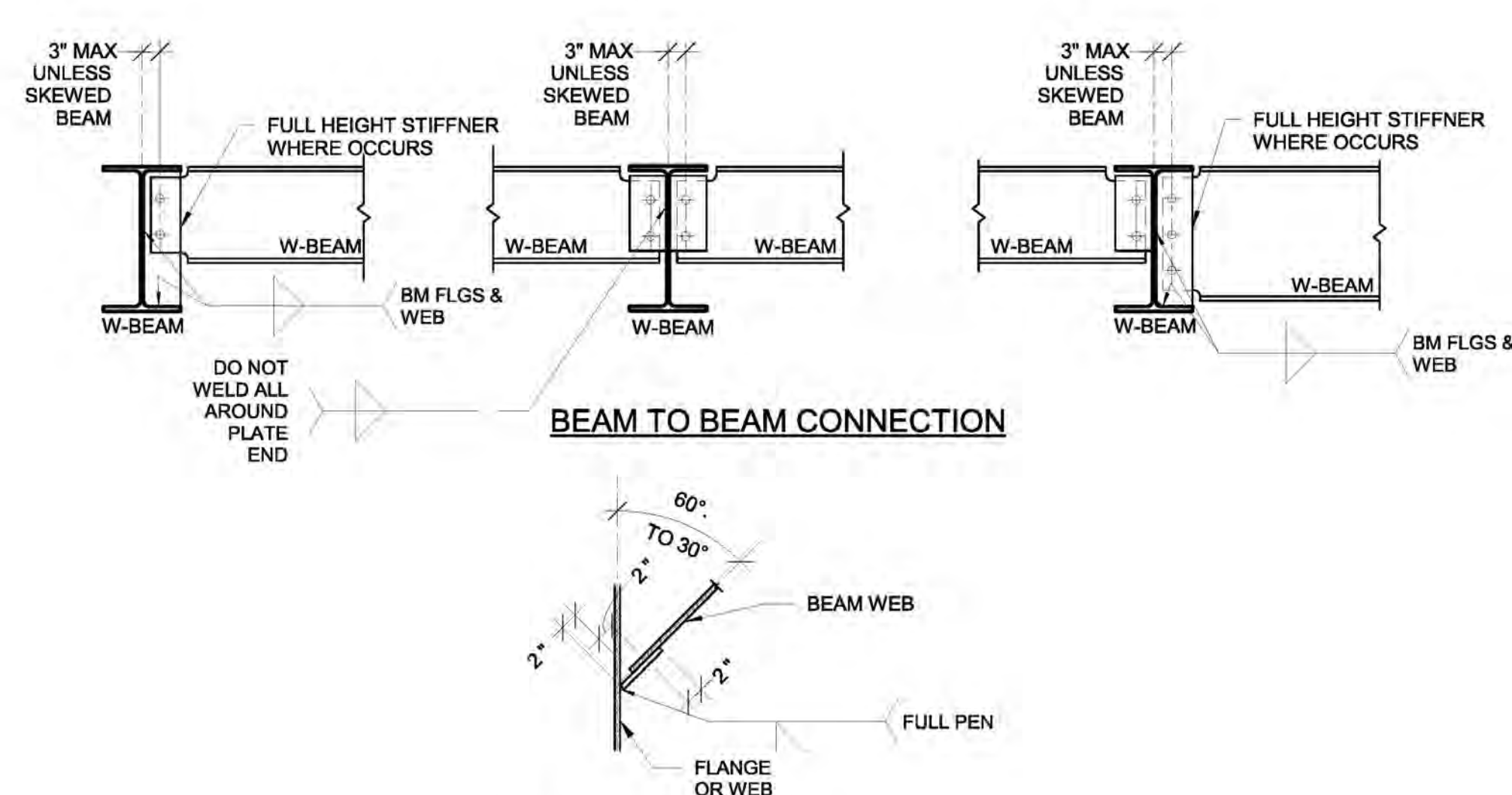
U.S. ARMY CORPS OF ENGINEERS  
KANSAS CITY DISTRICT  
  
AECOM  
100 RED SCHOOLHOUSE RD  
CHESTNUT RIDGE NY

**TYPICAL FRAMING DETAILS**



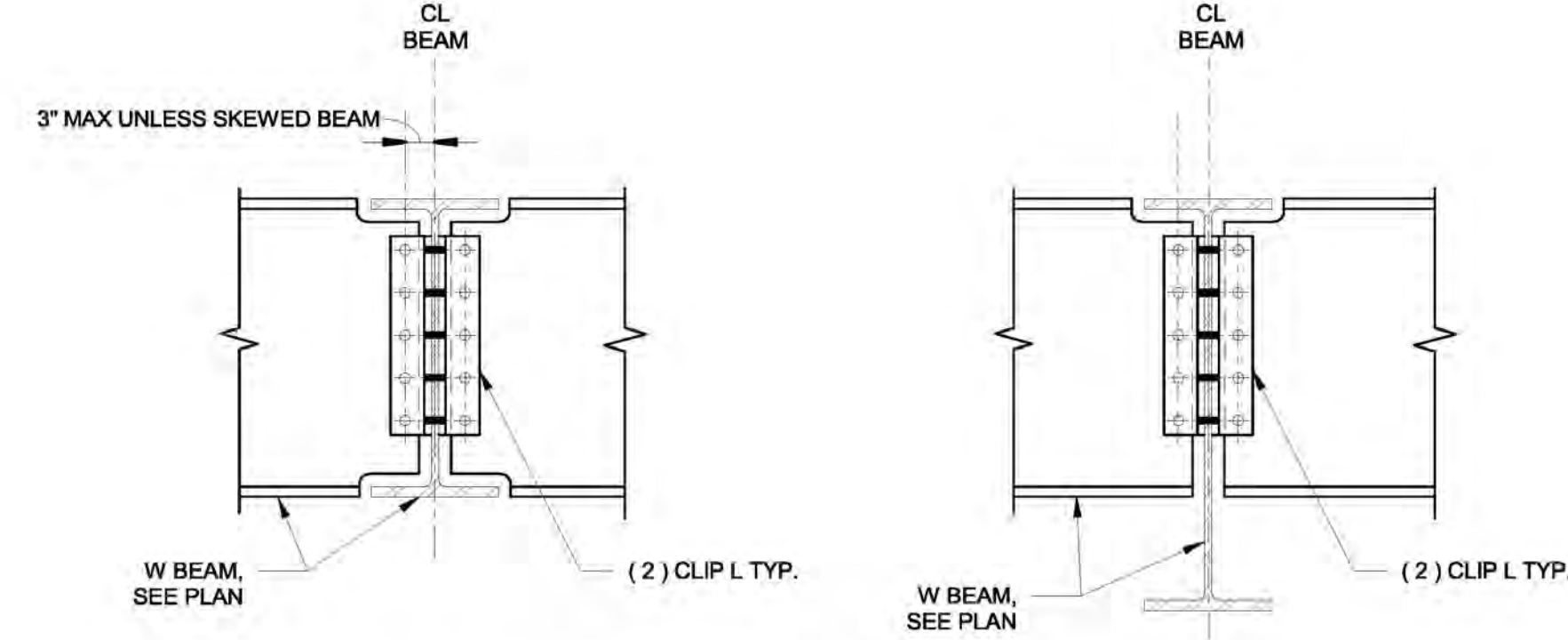
SHEET ID  
**S-502**

**VERIFY SCALE** BAR IS ONE INCH ON ORIGINAL DRAWING



### PLAN AT SKEWED BEAM

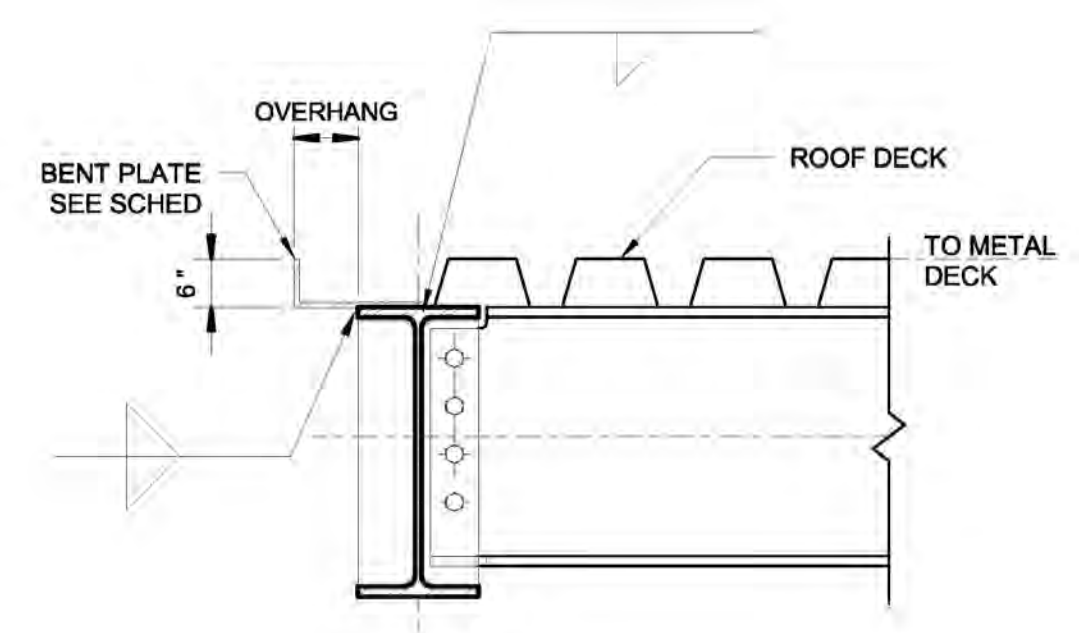
1	ALT BEAM CONNECTION DETAILS
S-502	NTS



NOTES:

1. CONTRACTOR SHALL SUBMIT FOR REVIEW CALCULATIONS FOR BEAM TO BEAM CONNECTIONS. CALCULATIONS SHALL BE SIGNED AND SEALED BY PROFESSIONAL ENGINEER REGISTERED IN THE STATE OF NEW JERSEY.
2. IN LIEU OF FIELD BOLTED CONNECTION, CONTRACTOR MAY ELECT TO USE A FIELD WELDED CONNECTION FOR THE BEAM WEB TO SHEAR PLATE OR DOUBLE ANGLE CONNECTION.

2	TYP BEAM BOLTED CONNECTION DETAIL
S-502	NTS



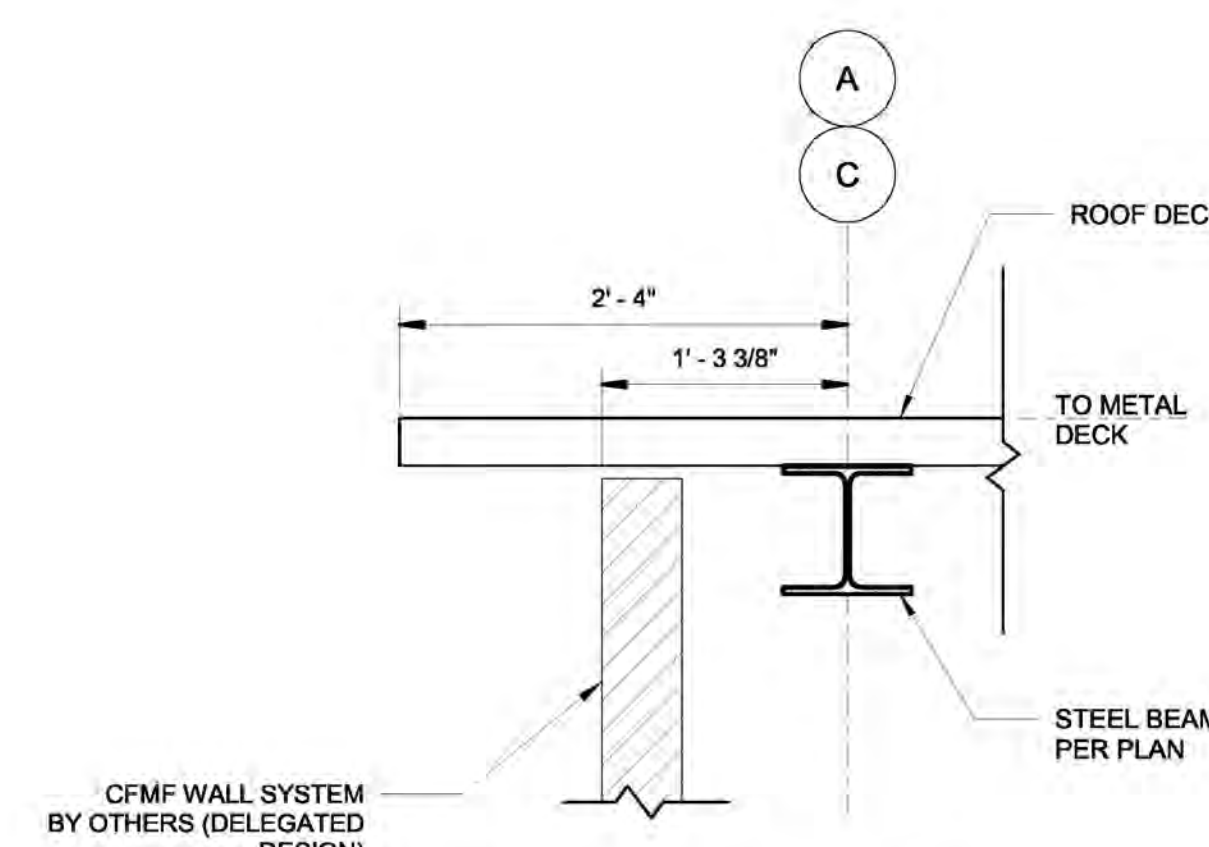
EDGE OF DECK SCHEDULE	
MAXIMUM OVERHANG	MINIMUM THICKNESS*
UP TO 3"	12 GAGE
UP TO 6"	12 GAGE
UP TO 9"	10 GAGE
UP TO 12"	3/16"
UP TO 18"	1/4"
UP TO 21"	5/16
UP TO 24"	3/8"
*NOTE: PROVIDE MINIMUM THICKNESS INDICATED, UNLESS A GREATER THICKNESS IS INDICATED IN SECTION OR DETAIL.	

3	TYPICAL ROOF EDGE DETAIL
S-502	NTS

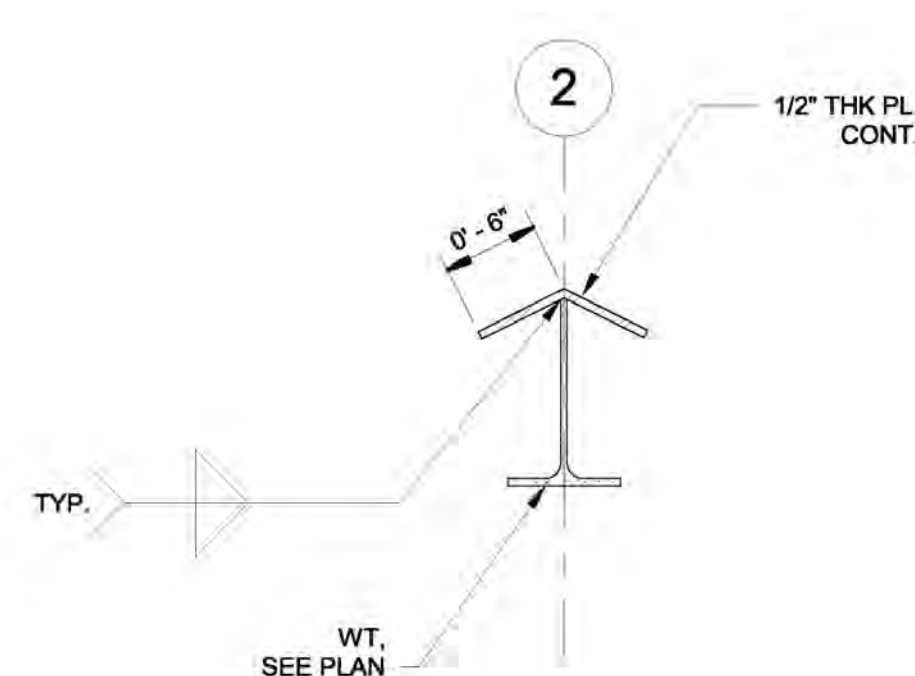
LRFD CONNECTION DESIGN FORCES FOR STEEL MEMBERS							
MEMBER SIZE	ALL CONNECTIONS			MOMENT CONNECTIONS ONLY			REMARKS
	AXIAL FORCE (KIPS)	MAJOR AXIS SHEAR (KIPS)	MINOR AXIS SHEAR (KIPS)	MAJOR AXIS BENDING (KIPS-FT)	MINOR AXIS BENDING (KIPS-FT)	TORSION (KIPS-FT)	
W8X31 (COLUMN TO RAFTER)	45	10	10	60	15	-	
W8X31 (HANGER)	10	10	10	-	-	-	
W8X31 (RAFTER)	50	15	10	-	-	-	
W8X31 (BEAM)	35	10	10	-	-	-	
BUILT-UP RIDGE	45	10	10	-	-	-	
W8X31 (BRACE)	45	-	-	-	-	-	
HSS4X4X1/2 (BRACE)	20	-	-	-	-	-	
L4X4X1/2 (BRACE)	10	-	-	-	-	-	
L6X6X1/2	10	10	10	-	-	-	
CABLE	35 (TENSION)	-	-	-	-	-	ALL CABLES TO BE PRETENSIONED TO 70% OF DESIGN LOAD

NOTES

1. ALL FORCES SHOWN ARE REVERSIBLE



4	TYPICAL ROOF EDGE DETAIL
S-502	NTS



5	BUILT-UP RIDGE BEAM
S-502	1" = 1'-0"

A

B

C

D

E

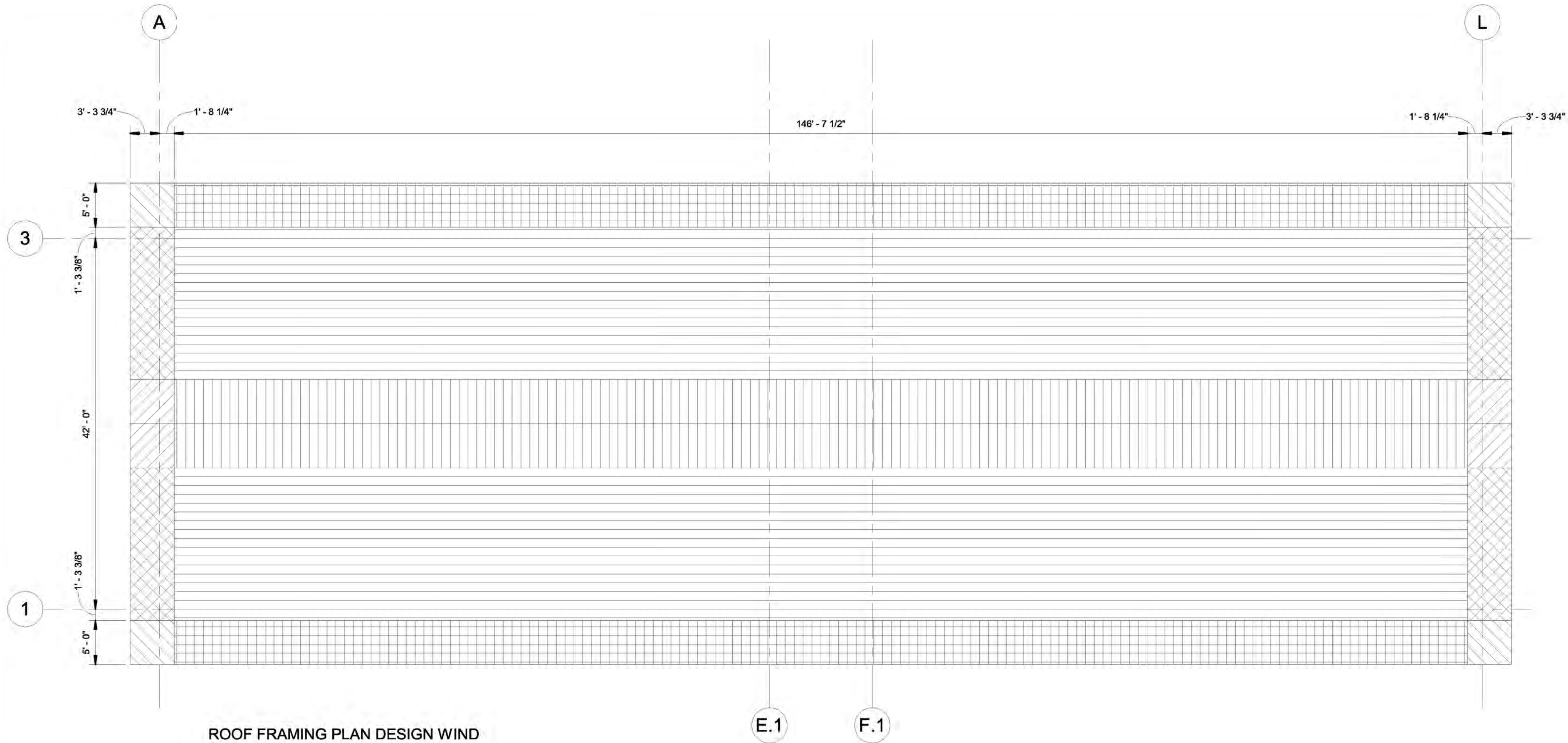
F

G

H

FOOTING SCHEDULE												
DIMENSIONS				REINFORCEMENT								
				TOP				BOTTOM				
MARK	LENGTH (L)	WIDTH (W)	THICKNESS (T)	LONGITUDINAL		TRANSVERSE		LONGITUDINAL		TRANSVERSE		REMARKS
				QTY	SIZE	QTY	SIZE	QTY	SIZE	QTY	SIZE	
F1	4'-6"	4'-6"	2'-0"	4	#4	4	#4	6	#6	6	#6	*PROVIDE 90-DEGREE HOOK



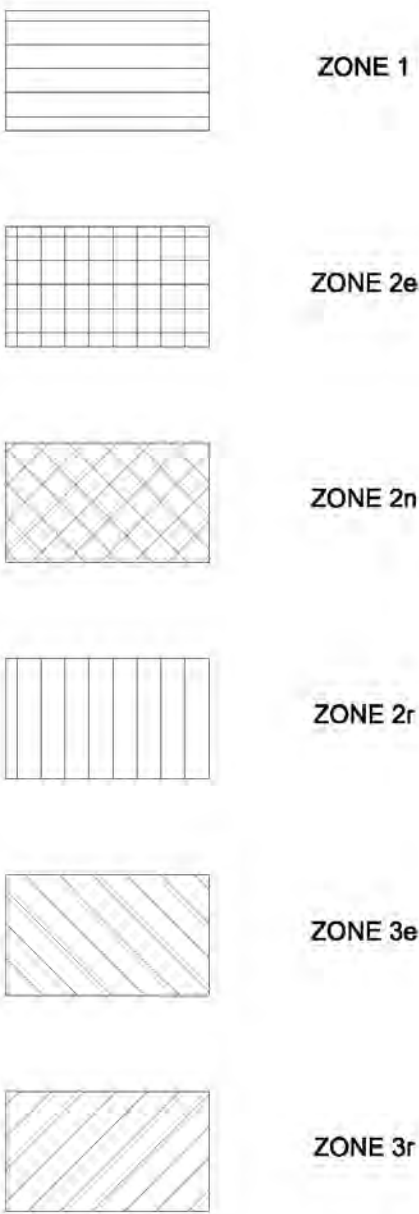


ROOF FRAMING PLAN DESIGN WIND  
PRESSURE - ROOF PLAN  
1/8" = 1'-0"

**COMPONENTS & CLADDING WIND DESIGN  
PRESSURE - ROOF**

COMPONENT AREA	ZONE	PRESSURE (+ve) (PSF)	PRESSURE (-ve) (PSF)	PRESSURE MULTIPLIERS AT OVERHANGS
<= 2 sf	1	21.6	-41.2	1.0
20 sf	1	16.0	-41.2	1.0
100 sf	1	16.0	-31.0	1.0
>300 sf	1	16.0	-24.1	1.0
<= 2 sf	2e	21.6	-41.2	1.0
20 sf	2e	16.0	-41.2	1.0
100 sf	2e	16.0	-31.0	1.0
>300 sf	2e	16.0	-24.1	1.0
<= 2 sf	2n	21.6	-65.8	1.0
10 sf	2n	17.6	-65.8	1.0
100 sf	2n	16.0	-38.7	1.0
>150 sf	2n	16.0	-33.9	1.0
<= 2 sf	2r	21.6	-65.8	1.0
10 sf	2r	17.6	-65.8	1.0
100 sf	2r	16.0	-38.7	1.0
>150 sf	2r	16.0	-33.9	1.0
<= 2 sf	3e	21.6	-65.8	1.15
10 sf	3e	17.6	-65.8	1.15
100 sf	3e	16.0	-38.7	1.15
>150 sf	3e	16.0	-33.9	1.15
<= 2 sf	3r	21.6	-92.8	1.15
4 sf	3r	19.9	-92.8	1.15
10 sf	3r	17.6	-76.8	1.15
>50 sf	3r	16.0	-48.6	1.15

**COMPONENTS & CLADDING DESIGN WIND  
PRESSURE ZONE LEGEND**



**C&C DESIGN WIND PRESSURE  
NOTES**

- DESIGN PRESSURES SHOWN ON THIS SHEET REFLECT THE COMPONENTS AND CLADDING WIND LOADING ONLY. ALL OTHER LOAD CASES SHALL BE CONSIDERED IN THE DESIGN. ALL PRESURES ARE PERPENDICULAR TO ROOF SURFACES.
- POSITIVE LOADING REFLECTS DOWNWARD PRESSURE WHILE NEGATIVE LOADING REFLECTS UPLIFT PRESSURE.



**US Army Corps  
of Engineers®**

REVISIONS

MARK	DATE	DESCRIPTION

DESIGNED BY: SA	DATE: 09/24/2021	PROJECT NO.: 60620247
DRAWN BY: AK	CHECKED BY: ME	APPROVED BY: CH
U.S. ARMY CORPS OF ENGINEERS KANSAS CITY DISTRICT	AECOM 100 RED SCHOOLHOUSE RD CHESTNUT RIDGE, NY	

ROEBLING STEEL SUPERFUND SITE  
VILLAGE OF ROEBLING - FLORENCE TOWNSHIP, NJ  
OPERABLE UNIT 4 - PRESTRETCHER/PREENSIONING SYSTEM BUILDING  
**DESIGN WIND PRESSURE - ROOF  
PLAN**



SHEET ID  
**S-602**

9/23/2021 6:27:14 PM

6

5

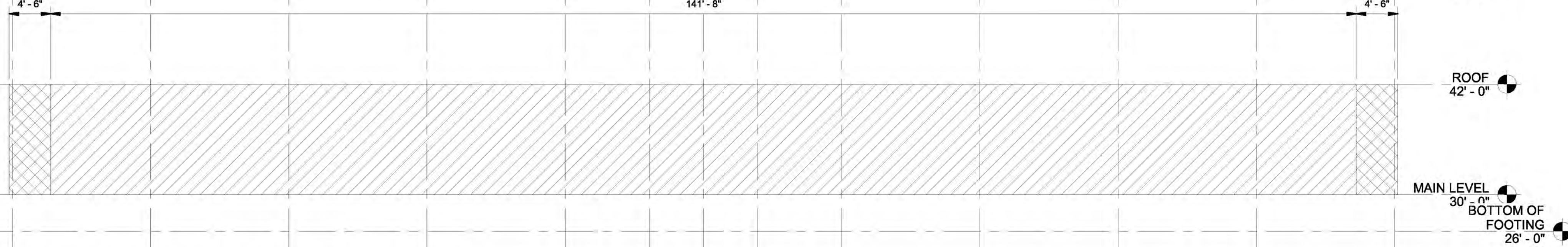
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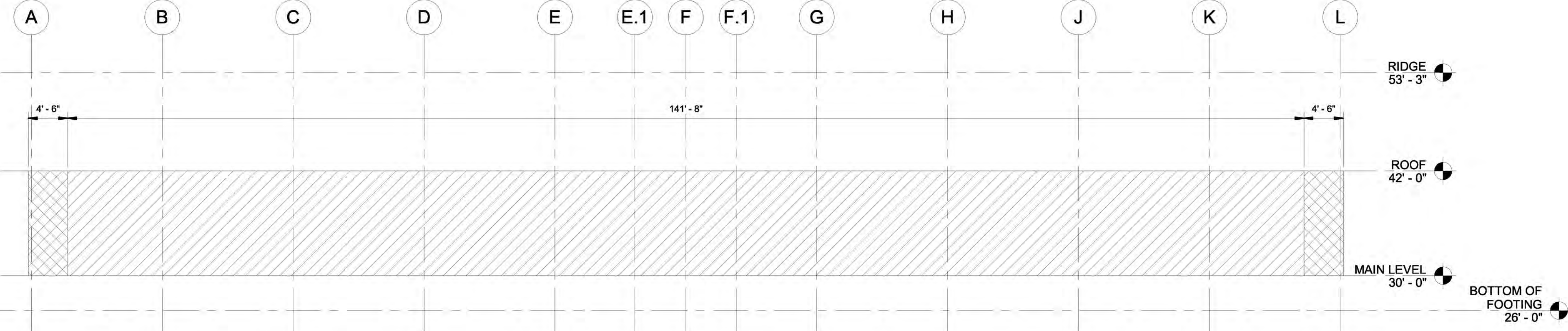
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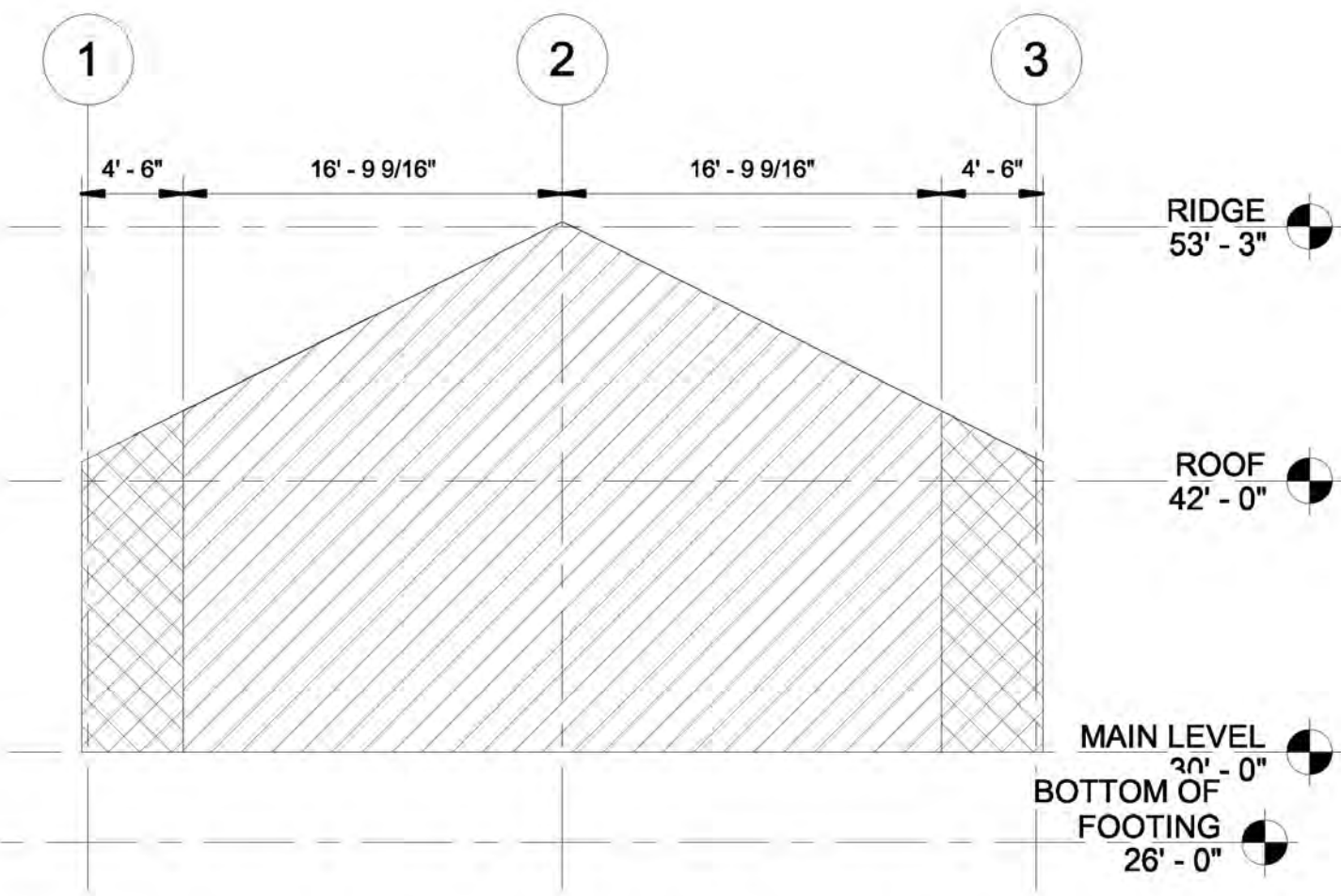
L K J H G F.1 F E.1 E D C B A



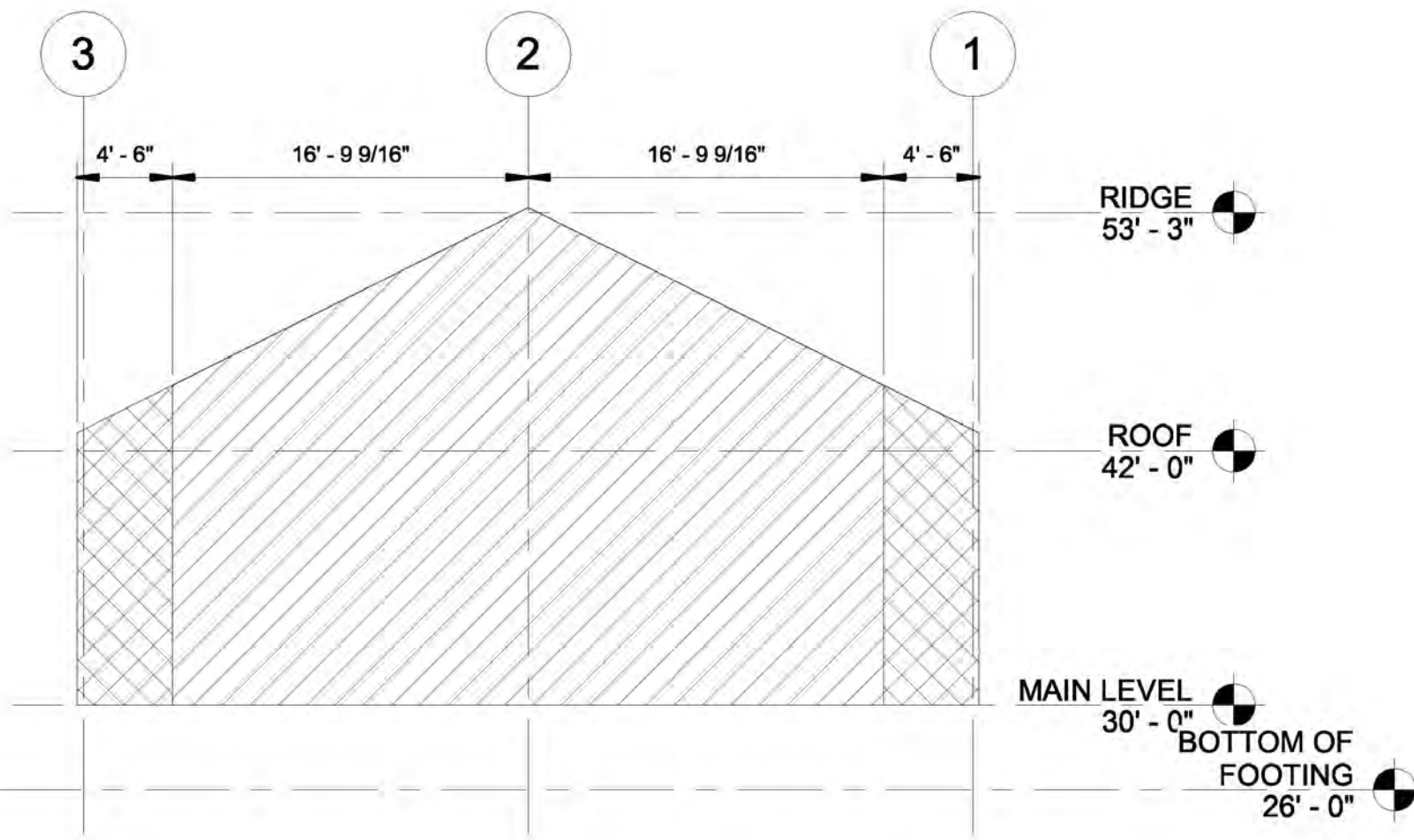
1 C&C DESIGN WIND PRESSURE - NORTH ELEVATION  
S-603 1/8" = 1'-0"



2 C&C DESIGN WIND PRESSURE - SOUTH ELEVATION  
S-603 1/8" = 1'-0"



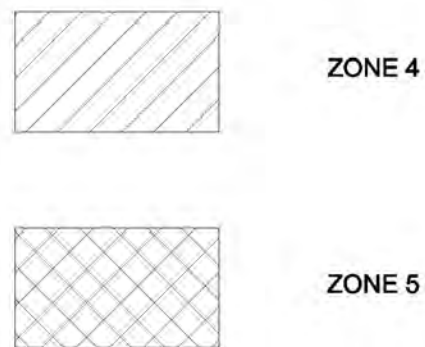
3 C&C DESIGN WIND PRESSURE - EAST ELEVATION  
S-603 1/8" = 1'-0"



4 C&C DESIGN WIND PRESSURE - WEST ELEVATION  
S-603 1/8" = 1'-0"

COMPONENTS & CLADDING WIND DESIGN PRESSURE - WALLS			
COMPONENT AREA	ZONE	PRESSURE (+ve) (PSF)	PRESSURE (-ve) (PSF)
<= 10 sf	4	29.0	-31.4
50 sf	4	25.9	-28.4
200 sf	4	23.3	-25.8
>500 sf	4	21.6	-24.1
<= 10 sf	5	29.0	-38.8
50 sf	5	25.9	-32.7
200 sf	5	23.3	-27.5
>500 sf	5	21.6	-24.1

COMPONENTS & CLADDING DESIGN WIND PRESSURE ZONE LEGEND



C&C DESIGN WIND PRESSURE NOTES

- DESIGN PRESSURES SHOWN ON THIS SHEET REFLECT THE COMPONENTS AND CLADDING WIND LOADING ONLY. ALL OTHER LOAD CASES SHALL BE CONSIDERED IN THE DESIGN. ALL PRESSURES ARE PERPENDICULAR TO WALL SURFACES.
- POSITIVE LOADING REFLECTS INWARD PRESSURE WHILE NEGATIVE LOADING REFLECTS OUTWARD PRESSURE.



REVISIONS	
MARK	DESCRIPTION

DESIGNED BY: SA	DATE: 09/24/2021	PROJECT NO.: 60620247
DRAWN BY: AK	CHECKED BY: ME	APPROVED BY: CH
U.S. ARMY CORPS OF ENGINEERS KANSAS CITY DISTRICT		AECOM 100 RED SCHOOLHOUSE RD CHESTNUT RIDGE, NY

ROEBLING STEEL SUPERFUND SITE  
VILLAGE OF ROEBLING - FLORENCE TOWNSHIP, NJ  
OPERABLE UNIT 4 - PRESTRETCHER/PRE-TENSIONING SYSTEM BUILDING

**DESIGN WIND PRESSURE - ELEVATIONS**



SHEET ID  
**S-603**

VERIFY SCALE BAR IS ONE INCH ON ORIGINAL DRAWING

ARCHITECTURAL SYMBOLS

SLOPE

DOOR

FURNITURE

LOUVER

SIGNAGE

WINDOW

WALL

NORTH ARROW

ARCHITECTURAL GENERAL NOTES

A. GENERAL

- REFER TO CIVIL, STRUCTURAL, MECHANICAL, AND ELECTRICAL DRAWINGS FOR ADDITIONAL GENERAL NOTES, ABBREVIATIONS, AND SYMBOLS.
- DETAILS SHOWN ARE TYPICAL IN NATURE AND ARE INDICATIVE OF PROFILES AND TYPES REQUIRED FOR THE WORK. REMAINDER OF THE WORK IS SIMILAR IN CHARACTER TO THESE DETAILS.
- MATERIALS AND SYSTEMS NOTES ARE TYPICAL IN NATURE AND APPLY TO MULTIPLE DRAWINGS. NOTES ON ANY ONE DRAWING ARE TO APPLY TO ALL OTHER SIMILAR MATERIALS AND SYSTEMS UNLESS NOTED OTHERWISE.
- ELEVATIONS NOTED ON ARCHITECTURAL DRAWINGS ARE FOR ELEVATIONS AT TOP OF FLOOR SLAB UNLESS NOTED OTHERWISE.
- COORDINATE FLOOR AND WALL PENETRATIONS, SLEEVES AND MECHANICAL SHAFTS WITH TRADES CONTRACTORS, INCLUDING BUT NOT LIMITED TO, MECHANICAL, ELECTRICAL, PLUMBING AND FIRE PROTECTION CONTRACTORS.
- ALL WORK SHALL CONFORM TO ALL APPLICABLE CODES, STANDARDS, AND GOVERNING AUTHORITIES.
- UNLESS NOTED OTHERWISE, WHERE AN ARCHITECTURAL FINISHED FLOOR IS TO BE PROVIDED REQUIRING DEPRESSED STRUCTURAL SLAB, THE FLOOR ELEVATIONS ARE TO THE TOP OF FINISHED FLOOR. WHERE AN ARCHITECTURAL FINISHED FLOOR IS INTENDED FOR SURFACE APPLICATION, THE FLOOR ELEVATIONS ARE TO TOP OF STRUCTURAL SLAB. REFER TO STRUCTURAL DRAWINGS FOR LOCATIONS OF DEPRESSIONS.
- UNLESS NOTED OTHERWISE, ALL FASTENERS AND FASTENING DEVICES ARE TO BE CONCEALED IN ALL FINISHED SPACES.
- ALL DISSIMILAR METALS SHALL BE EFFECTIVELY ISOLATED FROM EACH OTHER TO AVOID GALVANIC ACTION.
- ALL EXTERIOR FERROUS METAL WORK LOCATED IN EXTERIOR OR IN NON-CONDITIONED INTERIOR SPACES SHALL BE HOT-DIPPED GALVANIZED (EXCEPT FOR ORNAMENTAL METAL(S)).
- PROVIDE A 6'-8" MINIMUM HEADROOM CLEARANCE IN ALL EXIT PASSAGES AT ALL LOCATIONS (BENEATH SPRINKLERS, PIPING, LIGHTING, ETC.)
- THE ARCHITECT'S SELECTION OF MATERIALS AND DETAILS DOES NOT RELIEVE THE CONTRACTOR FROM VERIFYING WITH THE MATERIAL SUPPLIERS THAT THE PROPOSED MATERIALS ARE CORRECT AND PROPER FOR THE INTENDED APPLICATION AND USE.
- BLOCKING IS REQUIRED IN STEEL STUD AND GYPSUM WALLS FOR ALL ITEMS THAT ARE ATTACHED TO THE WALL. WOOD BLOCKING IS REQUIRED AT THE TOP ROW OF ATTACHMENT FOR ALL THE MILLWORK AND CASEWORK WALL CABINETS.

B. DIMENSIONING

- ALL DIMENSIONS ARE IN FEET-INCHES UNLESS NOTED OTHERWISE.
- EXTERIOR WALLS ARE DIMENSIONED TO THE FACE OF FINISH UNLESS NOTED OTHERWISE.
- INTERIOR WALLS AND PARTITIONS ARE DIMENSIONED TO THE FACE OF FINISH UNLESS NOTED OTHERWISE.
- DOORS ARE LOCATED BY THEIR JAMB DETAIL RELATIVE TO ADJACENT WALLS AND PARTITIONS. DOOR OPENINGS ARE DIMENSIONED TO THE OUTSIDE FACE OF THE DOOR FRAMES.

C. PARTITION NOTES

- EXTEND PARTITIONS TO THE UNDERSIDE OF THE STRUCTURAL DECK OR FRAMING ABOVE UNLESS SHOWN OR NOTED OTHERWISE.
- MOVEMENT CONTROL: PROVIDE FOR VERTICAL MOVEMENT AT HEAD OF ALL GYPSUM BOARD CONSTRUCTION WHETHER OR NOT INDICATED ON THE DRAWINGS AND NOTES.
- MISCELLANEOUS: SEAL EXTERIOR JOINTS AROUND DOORS, WINDOWS AND LOUVER FRAMES AND AT PENETRATIONS OF MECHANICAL, ELECTRICAL, PLUMBING AND FIRE PROTECTION ELEMENTS TO PREVENT AIR AND WATER LEAKAGE.
- ANCHOR AND REINFORCE CONCRETE CURBS AS SHOWN ON STRUCTURAL DRAWINGS.
- PROVIDE ACCESS PANELS AS REQUIRED FOR MECHANICAL, ELECTRICAL, PLUMBING AND FIRE PROTECTION EQUIPMENT. THIS WORK SHALL BE COORDINATED BETWEEN ACCESS PANELS SUBCONTRACTOR AND MECH, ELEC, PLUMBING SUBCONTRACTOR PRIOR TO SUBMITTAL OF MEP SHOP DRAWINGS.
- ALL GYP BD TO BE "TYPE X", 5/8" MIN THICKNESS, UNO
- ALL BATT INSULATION TO BE INSTALLED TIGHT IN A COMPRESSION FIT TO STUDS, STRUCTURE AND ADJACENT SURFACES.
- CONTRACTOR SHALL COORDINATE JOINT AND HEAD TERMINATION DETAILS WITH ACTUAL FIELD CONDITIONS AND FURNISH PER DETAILS SHOWN ON THE DRAWINGS.
- REFER TO PLANS FOR LOCATIONS OF PARTITION TYPES.
- TAPE, BED AND FINISH ALL CORNERS AND JOINTS READY FOR FINISH.
- USE ZINC ALLOY STEEL CORNER REINFORCEMENT, CASING BEADS, ETC. ON ALL APPLICATIONS. ALL BEADS TO BE POSITIVELY ATTACHED WITH FASTENERS PER TESTED ASSEMBLY (CRIMP ATTACHMENT WILL NOT BE ACCEPTABLE).
- TAPE AND FLOAT GYPSUM WALLBOARD JOINTS EXTENDING ABOVE CEILING FINISHES.
- MAXIMUM SPACING OF CONTROL JOINTS FOR GYPSUM AND METAL STUD PARTITIONS SHALL BE SPACED A MAXIMUM OF 30'.

D. SEALANTS

- ALL SEALANT JOINTS SHALL BE SIZED SUCH THAT THEY WILL BE WITHIN THE MINIMUM/MAXIMUM SIZE AS RECOMMENDED BY THE MANUFACTURER IN THEIR INSTALLED POSITION.
- ALL SEALANT JOINTS SHALL MAINTAIN CONTACT WITH THE ADJOINING PARTS WITHIN ALLOWABLE DIMENSIONED CHANGES IN THE JOINT SIZE. ALL SEALANT JOINTS SHALL MAINTAIN DURABILITY AND INTEGRITY UNDER ALL SPECIFIED CONDITIONS AND CONDITIONS OF THE LOCALITY WHERE THE PROJECT IS LOCATED.
- ALL SEALANTS SHALL BE INSTALLED WITH APPROPRIATE JOINT FILLER.
- PROVIDE CUSTOM COLOR FOR SEALANTS EXPOSED TO VIEW, AS SELECTED BY ARCHITECT.
- ALL EXPOSED JOINTS SUBJECT TO MOVEMENT ARE TO HAVE CONCEALED BACKUP WITH CAPTIVE SEALANT AND JOINT FILLER OR BOND BREAKER TAPE IN ACCORDANCE WITH SEALANT MANUFACTURER'S MINIMUM PUBLISHED REQUIREMENTS.
- THE SEALANT MANUFACTURER SHALL VERIFY THAT ALL SEALANTS USED FOR THE EXTERIOR WALL ARE CORRECT FOR THE APPLICATION SHOWN AND WILL BE COMPATIBLE WITH EACH OTHER BEFORE, DURING AND AFTER CURING.
- ALL GASKETS, INTERIOR AND EXTERIOR TO BE PROVIDED WITH PREMOLDED VULCANIZED CORNERS. ALL FIELD VULCANIZING TO BE EQUAL IN QUALITY TO FACTORY VULCANIZING.
- ALL JOINTS TO BE BACKED UP BY PROPERLY SIZED CLOSED CELL BACKER ROD.

ARCHITECTURAL ABBREVIATIONS

%	PERCENT
&	AND
@	AT
°F	DEGREES FAHRENHEIT
ACT	ACOUSTIC CEILING TILE
AFF	ABOVE FINISH FLOOR
AL	ALUMINUM
ANSI	AMERICAN NATIONAL STANDARD INSTITUTE
ASHRAE	AMERICAN SOCIETY OF HEATING, REFRIGERATION, AND AIR CONDITIONING ENGINEERS
B.O.	BOTTOM OF
BD	BOARD
CIP	CAST-IN-PLACE CONCRETE
CLR	CLEAR, CLEARANCE
CONC	CONCRETE
CONT	CONTINUOUS
CT	CERAMIC TILE
DIST	DISTANCE
DS	DOWNSPOUT
DWG	DRAWING
E	EAST
EL	ELEVATION
ELEC	ELECTRICAL
EQ	EQUAL
EQUIP	EQUIPMENT
EXT	EXTERIOR
FE	FIRE EXTINGUISHER
FEC	FIRE EXTINGUISHER CABINET
GL	GLASS
GYP	GYPSUM BOARD
HP	HIGH POINT
HR	HOUR
IBC	INTERNATIONAL BUILDING CODE
ICC	INTERNATIONAL CODE COUNCIL
INSUL	INSULATE, INSULATION
JT	JOINT
LP	LOW POINT
MAX	MAXIMUM
MECH	MECHANICAL
MFR	MANUFACTURER
MIN	MINIMUM
MTL	METAL
N	NORTH
N/A	NOT APPLICABLE
NFPA	NATIONAL FIRE PROTECTION ASSOCIATION
PT	PAINTED
PV	PHOTOVOLTAIC
R.O.	ROUGH OPENING
S	SOUTH
SC	SEALED CONCRETE
SCH	SCHEDULE
SF	SQUARE FEET, STOREFRONT SYSTEM
SQ FT	SQUARE FOOT / FEET
STL	STEEL
STRUCT	STRUCTURAL
SYS	SYSTEM
TBD	TO BE DETERMINED
TYP	TYPICAL
UNO	UNLESS NOTED OTHERWISE
USACE	US ARMY CORPS OF ENGINEERS
W	WEST
W/	WITH



US Army Corps of Engineers®

REVISIONS

MARK

DATE:

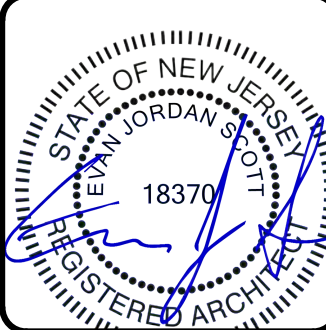
DESIGNED BY:

U.S. ARMY CORPS OF ENGINEERS  
KANSAS CITY DISTRICT

AECOM  
100 RED SCHOOLHOUSE RD  
CHESTNUT RIDGE, NY

ROEBLING STEEL SUPERFUND SITE  
VILLAGE OF ROEBLING - FLORENCE TOWNSHIP, NJ  
OPERABLE UNIT 4 - PRESTRETCHER/PRE-TENSIONING SYSTEM BUILDING

ARCHITECTURAL LEGEND &  
GENERAL NOTES

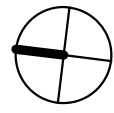


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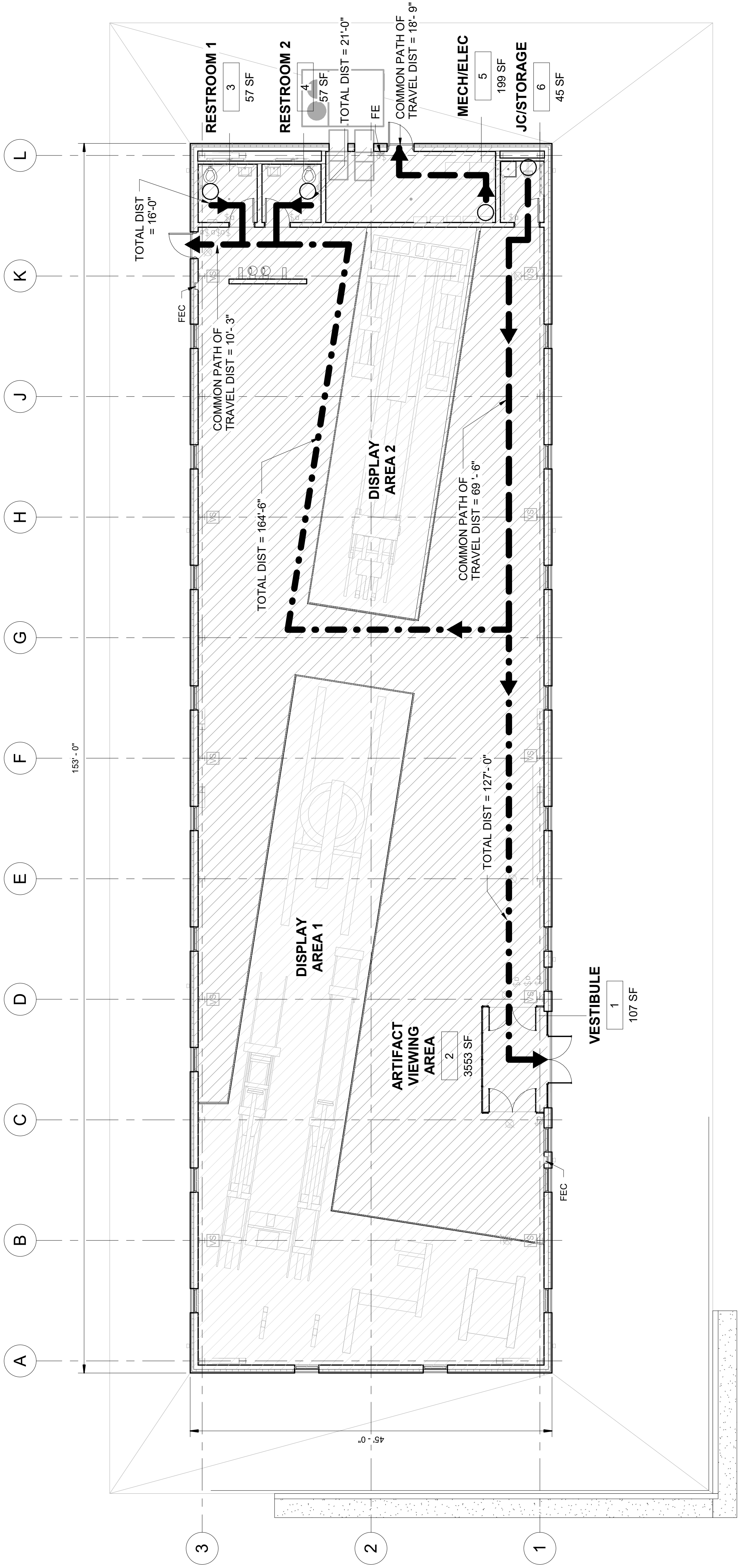
A-001

**VERIFY SCALE** BAR IS ONE INCH ON ORIGINAL DRAWING

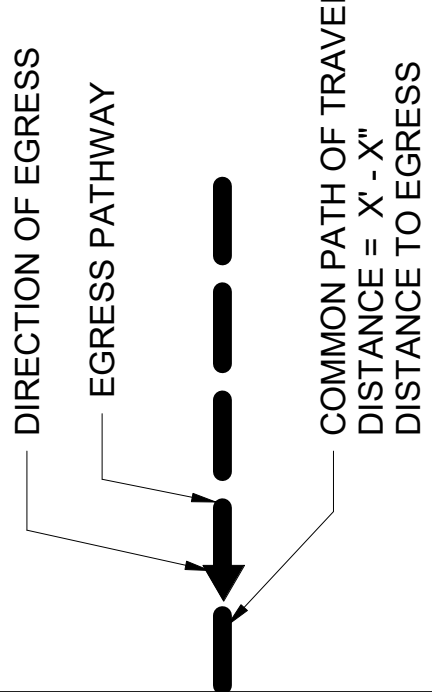
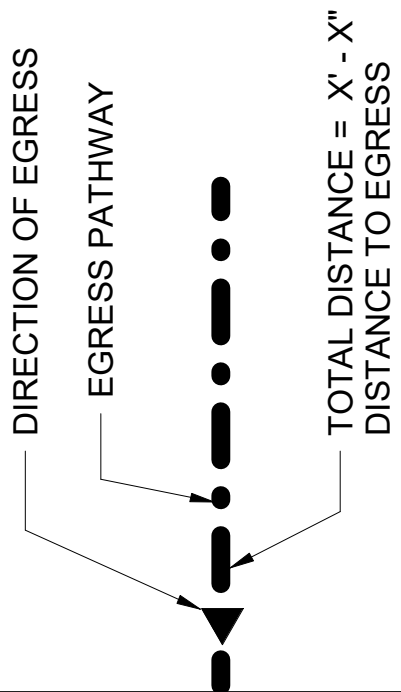




MAIN LEVEL EGRESS PLAN  
1/8" = 1'-0"



GENERAL NOTES



FIRE EXTINGUISHER  
CABINET (FEC)



FIRE EXTINGUISHER (FE)

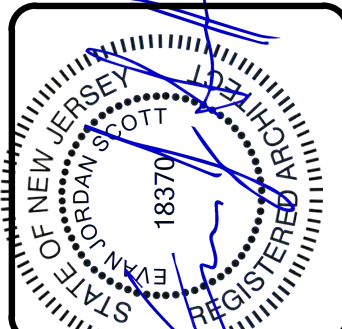
REVISIONS

MARK	DATE	DESCRIPTION

DESIGNED BY: DB	PROJECT NO.: 60520247
DRAWN BY: JMW/Z	CHECKED BY: MS
APPROVED BY: CH	
U.S. ARMY CORPS OF ENGINEERS	AECOM
KANSAS CITY DISTRICT	100 RED SCHOOLHOUSE RD
	CHESTNUT RIDGE, NY

ROEBLING STEEL SUPERFUND SITE  
VILLAGE OF ROEBLING - FLORENCE TOWNSHIP, NJ  
OPERABLE UNIT 4 - PRESTRETCHER/PRE-TENSIONING SYSTEM BUILDING

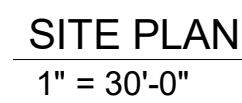
BUILDING EGRESS PLANS



SHEET ID

A-004





NEW

EXISTING

CURB

WOOD FENCE

CHAIN LINK FENCE

IRON FENCE

TOPOGRAPHY CONTOUR



MARK	DATE	DESCRIPTION
------	------	-------------

U.S. ARMY CORPS OF ENGINEERS KANSAS CITY DISTRICT	DESIGNED BY:	DATE:
	DB	09/24/2011
	DRAWN BY:	PROJECT NO.:
	JWW/Z	60520247
AECOM 100 RED SCHOOLHOUSE RD CHESTNUT RIDGE, NY	CHECKED BY:	
	MS	
	APPROVED BY:	
	CH	

ROEBLING STEEL SUPERFUND SITE  
VILLAGE OF ROEBLING - FLORENCE TOWNSHIP, NJ  
OPERABLE UNIT 4 - PRESTRETCHER/PRETENSIONING SYSTEM BUILDING

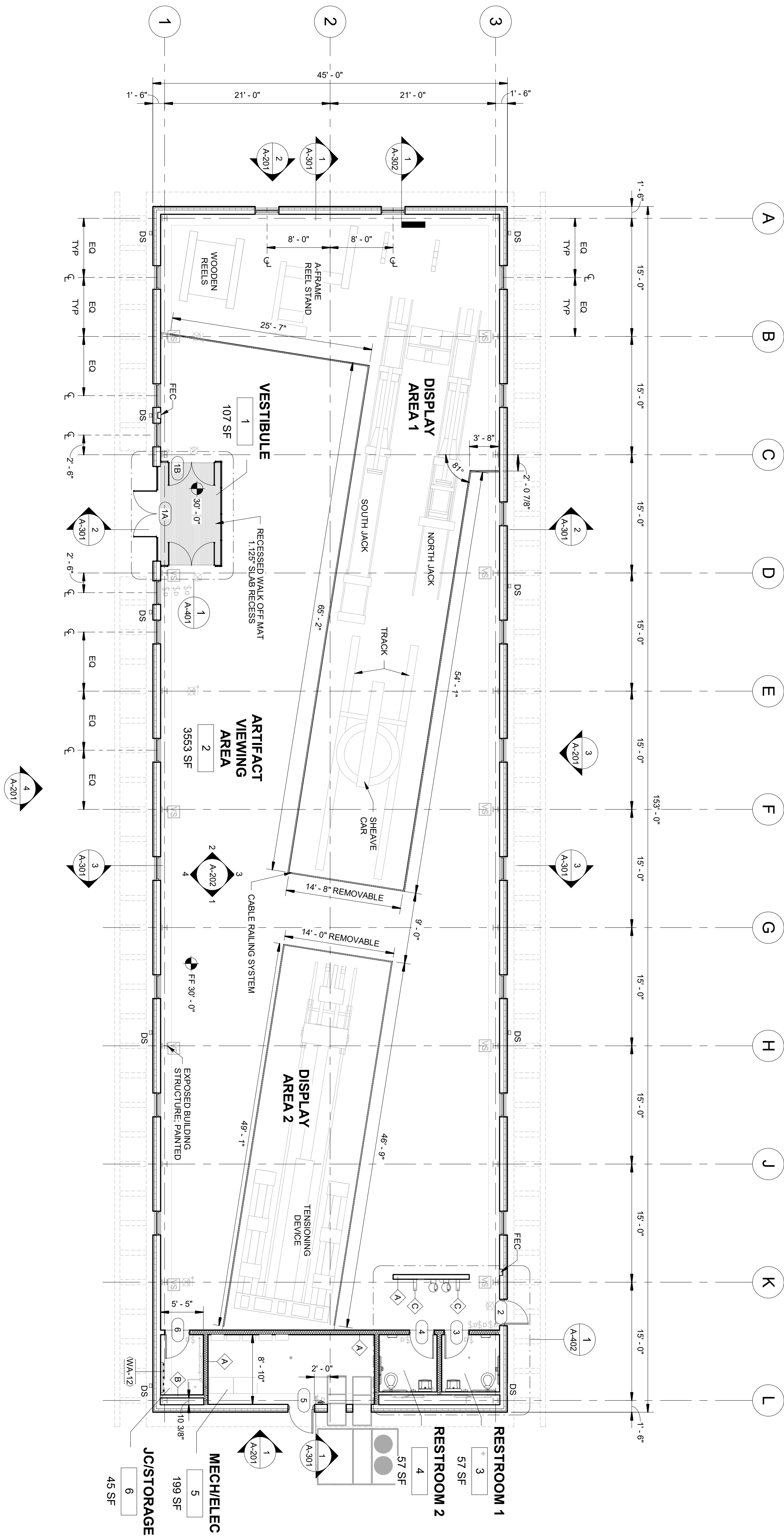
# ARCHITECTURAL SITE PLAN



SHEET ID

# A-100

**VERIFY SCALE** BAR IS ONE INCH ON ORIGINAL DRAWING. —



FLOOR PLAN  
1/8" = 1'-0"

SHEET NOTES

- SEE SHEET A-601 FOR PARTITION TYPES
- DIMENSIONS ARE TAKEN FROM CENTERLINE GRID, FACE OF STRUCTURE, OR FINISH FACE OF FRAMED PARTITIONS
- SEE SHEET A-700 FOR ARTIFACT DIMENSIONS AND LOCATIONS
- CONTRACTOR TO COORDINATE INSTALLATION OF ARTIFACTS PRIOR TO ENCLOSURE OF BUILDING; PROTECTION OF ARTIFACTS FOR REMAINDER OF CONSTRUCTION ASSUMED TO BE TEMPORARY SCAFFOLDING OR SIMILAR



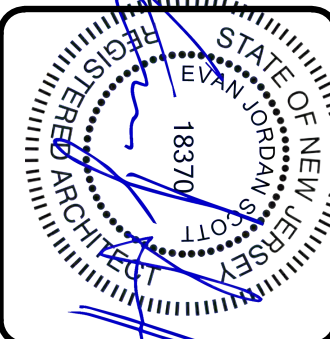
REVISIONS		
MARK	DATE	DESCRIPTION

DESIGNED BY: DB	DATE: 09/24/2021
DRAWN BY: JW/WZ	PROJECT NO.: 60520247
CHECKED BY: MS	
APPROVED BY: CH	

U.S. ARMY CORPS OF ENGINEERS  
KANSAS CITY DISTRICT  
  
AECOM  
100 RED SCHOOLHOUSE RD  
CHESTNUT RIDGE, NY

ROEBLING STEEL SUPERFUND SITE  
VILLAGE OF ROEBLING - FLORENCE TOWNSHIP, NJ  
OPERABLE UNIT 4 - PRESTRETCHER/PRETENSIONING SYSTEM BUILDING

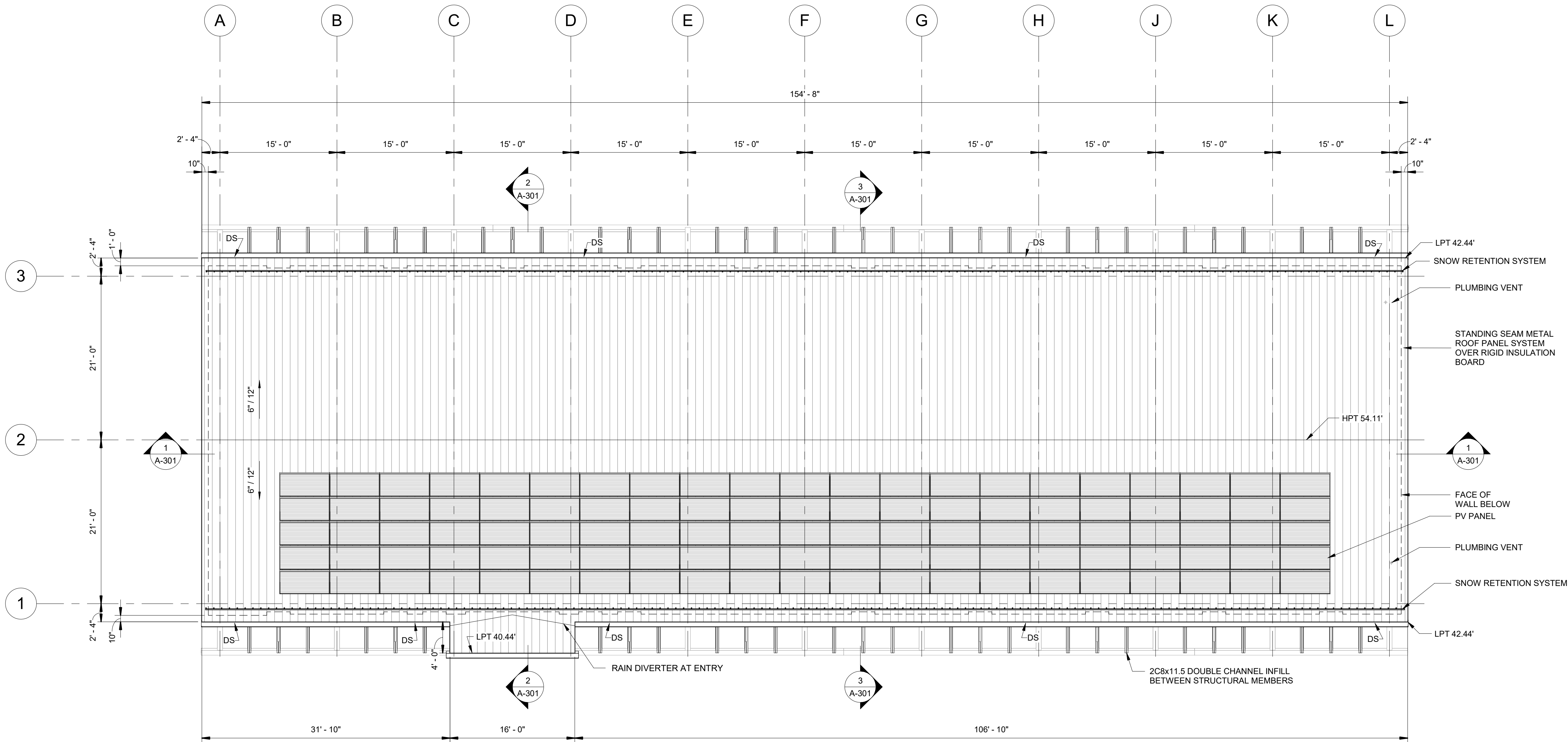
FLOOR PLAN

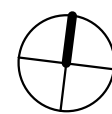


SHEET ID  
A-101

9/24/2021 12:54:11 PM

1 2 3 4 5 6

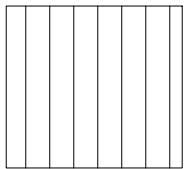


 **ROOF PLAN**  
1/8" = 1'-0"

SHEET NOTES

1. ROOF DETAILS AND CONDITIONS SHALL BE IN STRICT COMPLIANCE WITH ROOFING MANUFACTURERS REQUIREMENTS.
2. UNDER NO CIRCUMSTANCES SHALL THE CONTRACTOR LEAVE ANY ROOF AREAS EXPOSED AND UNPROTECTED OVERNIGHT OR DURING INCLEMENT WEATHER.
3. FOR ADDITIONAL DETAILS AND INFORMATION ON PV PANELS, MOUNTING AND WIRING, REFER TO PV DRAWINGS, PV-101, PV-600, PV-601.
4. COORDINATE ROOF PIPING PENETRATIONS WITH PLUMBING DRAWINGS.
5. ALL WORK AFFECTING ROOF WARRANTY SHALL BE PERFORMED BY CONTRACTOR CERTIFIED WITH ROOFING MANUFACTURER SO AS NOT TO NEGATE WARRANTY.

LEGEND



12" STANDING SEAM ROOF



PV PANEL; REFER TO SOLAR ELECTRIC PLAN, PV-101



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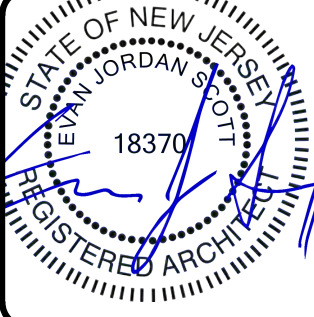
MARK	DATE	DESCRIPTION

DATE: 09/24/2021  
PROJECT NO.: 60520247

DESIGNED BY: DB  
DRAWN BY: JWW/Z  
CHECKED BY: MS  
APPROVED BY: CH

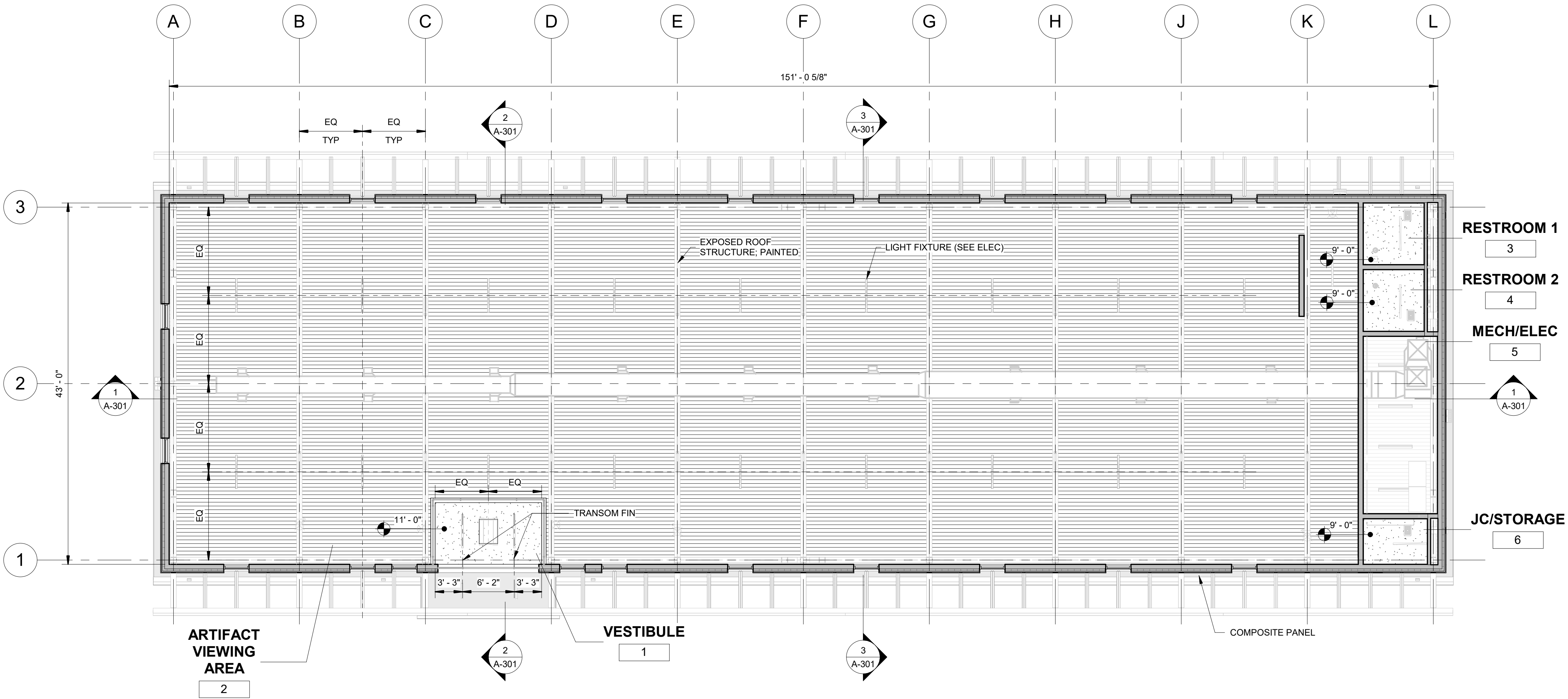
U.S. ARMY CORPS OF ENGINEERS  
KANSAS CITY DISTRICT  
AECOM  
100 RED SCHOOLHOUSE RD  
CHESTNUT RIDGE, NY

ROEBLING STEEL SUPERFUND SITE  
VILLAGE OF ROEBLING - FLORENCE TOWNSHIP, NJ  
OPERABLE UNIT 4 - PRESTRETCHER/PRENSIONING SYSTEM BUILDING



SHEET ID  
A-102

VERIFY SCALE BAR IS ONE INCH ON ORIGINAL DRAWING



REFLECTED CEILING PLAN  
1/8" = 1'-0"

SHEET NOTES

1. REFER TO ELECTRICAL DRAWINGS FOR FIXTURE TYPE
2. REFER TO MECHANICAL DRAWINGS FOR DIFFUSER TYPES
3. SEE EXTERIOR ELEVATION FOR EXTERIOR ARCHITECTURAL WALL TYPES

LEGEND

- COMPOSITE PANEL
- GYPSUM BOARD
- EXPOSED TO STRUCTURE
- LINEAR METAL CEILING, PERFORATED; COLOR WHITE
- LIGHTING FIXTURE - PENDANT
- LIGHTING FIXTURE - SURFACE MOUNT
- LIGHTING FIXTURE - RECESSED



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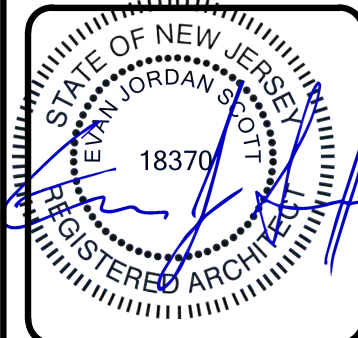
REVISIONS

MARK	DATE	DESCRIPTION

DESIGNED BY: DB	DATE: 09/24/2021	DRAWN BY: JWW/Z	PROJECT NO.: 60620247
U.S. ARMY CORPS OF ENGINEERS KANSAS CITY DISTRICT	CHECKED BY: MS	APPROVED BY: CH	AECOM 100 RED SCHOOLHOUSE RD CHESTNUT RIDGE, NY

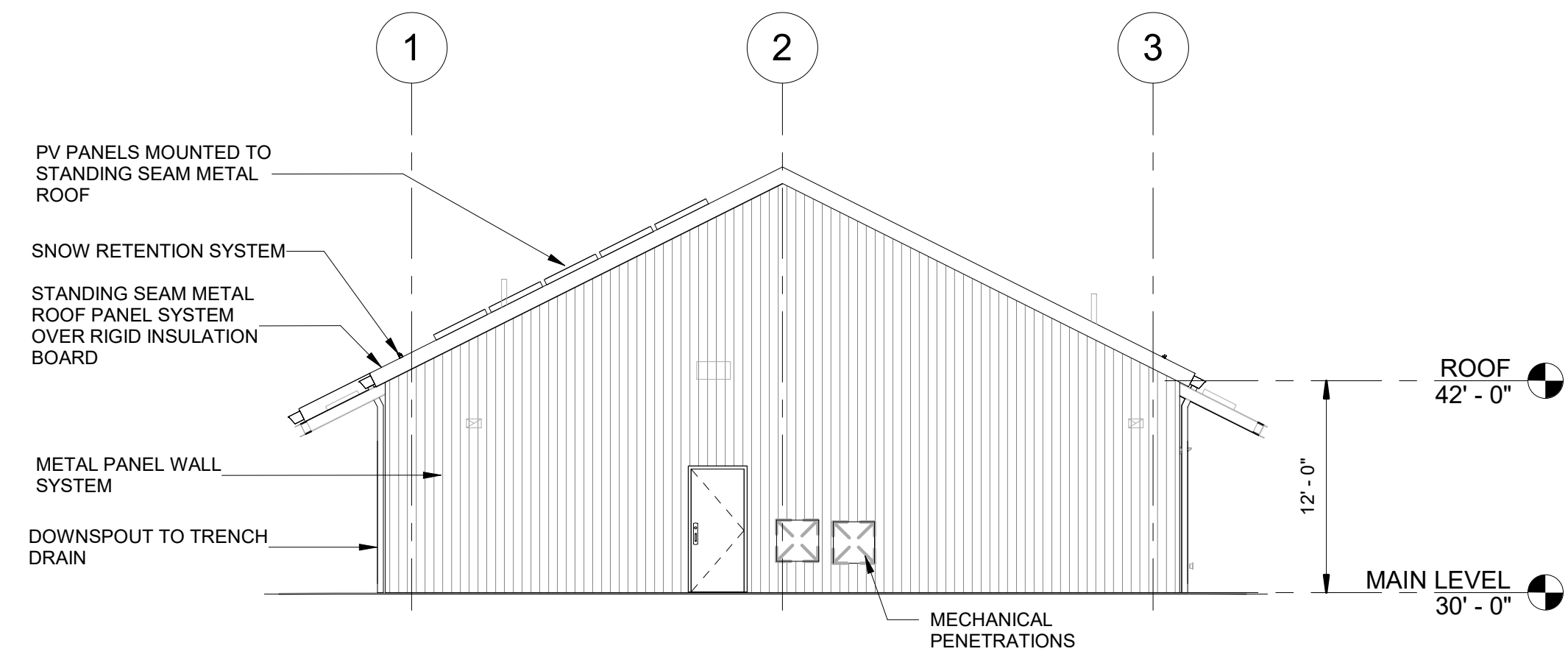
ROEBLING STEEL SUPERFUND SITE  
VILLAGE OF ROEBLING - FLORENCE TOWNSHIP, NJ  
OPERABLE UNIT 4 - PRESTRETCHER/PRE-TENSIONING SYSTEM BUILDING

REFLECTED CEILING PLAN

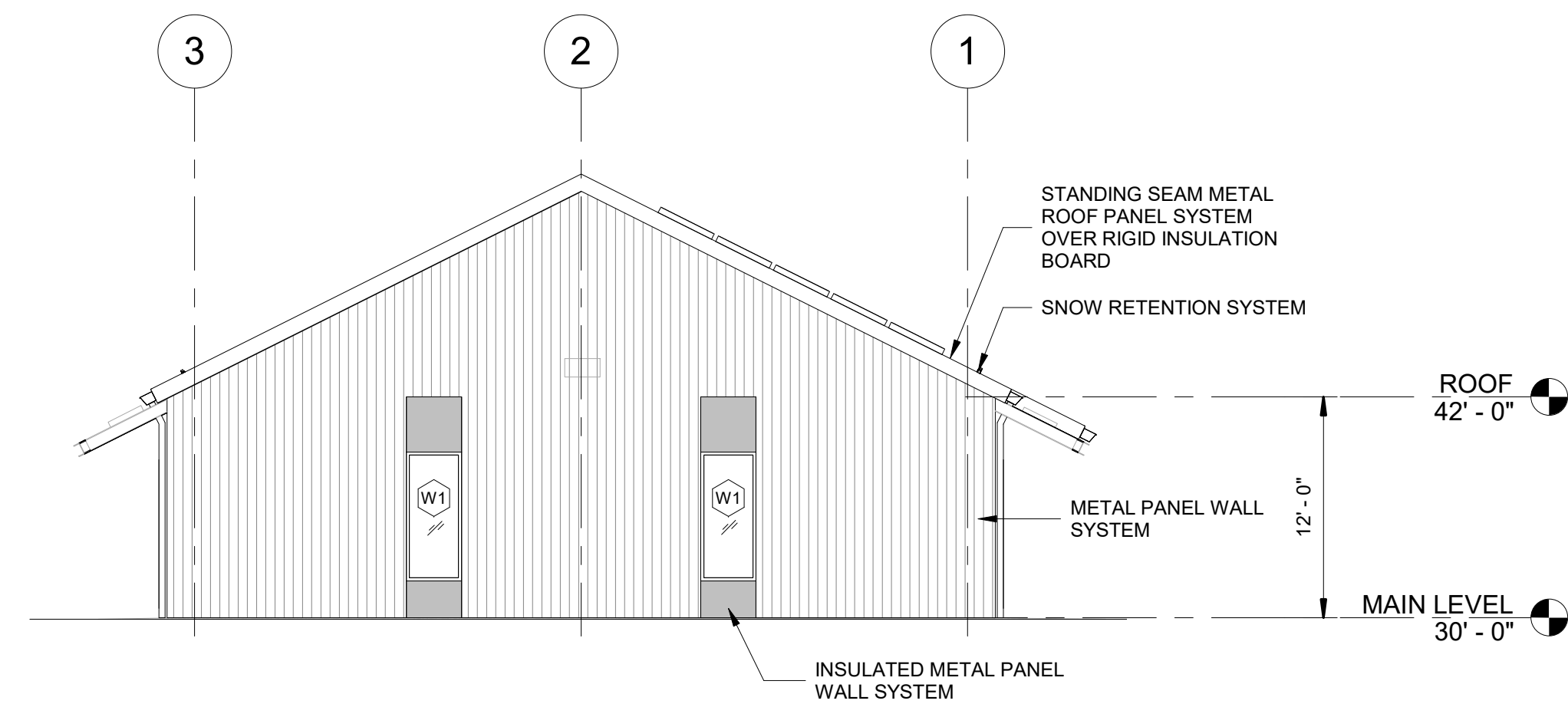


SHEET ID

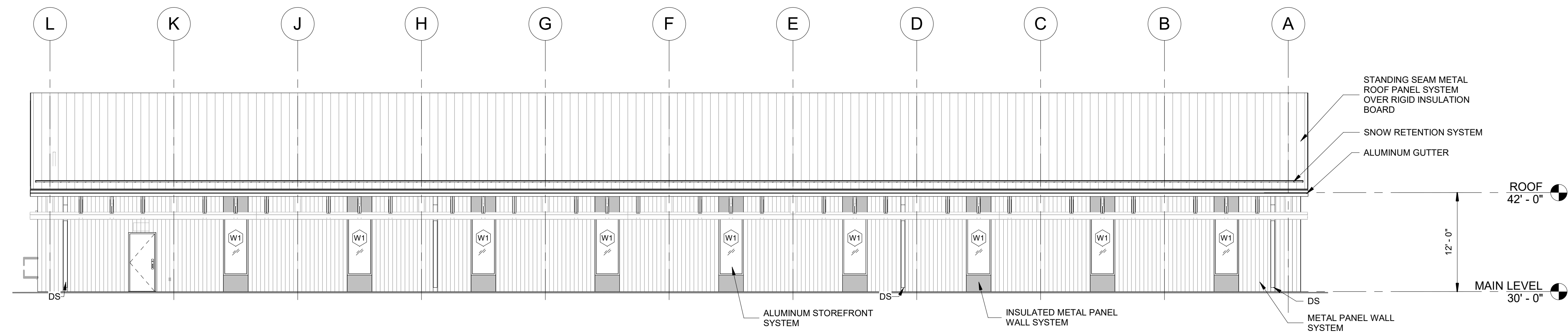
A-121



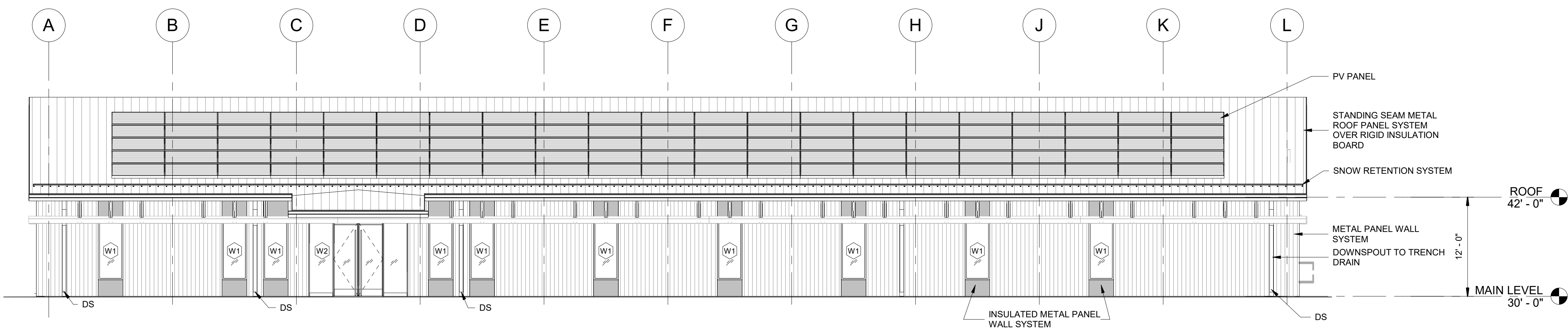
1 EAST EXTERIOR ELEVATION  
A-101 1/8" = 1'-0"



2 WEST EXTERIOR ELEVATION  
A-101 1/8" = 1'-0"



3 NORTH EXTERIOR ELEVATION  
A-101 1/8" = 1'-0"

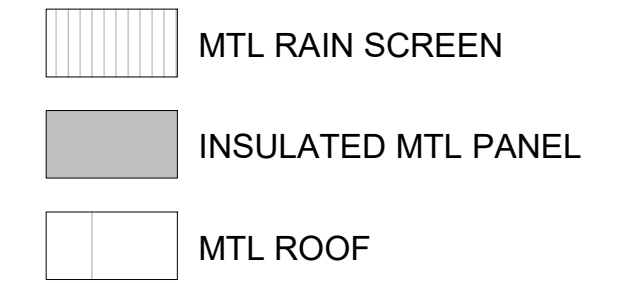


4 SOUTH EXTERIOR ELEVATION  
A-101 1/8" = 1'-0"

## GENERAL NOTES

1. FINAL P/C PANEL SIZE AND JOINT PLACEMENT TO BE DETERMINED WITH PRECASTER BEFORE PRODUCTION IN ORDER TO MAXIMIZE USE OF MATERIALS.
2. FINAL FORMLINER PATTERN TO BE DETERMINED WITH PRECASTER BEFORE PRODUCTION.

### LEGEND



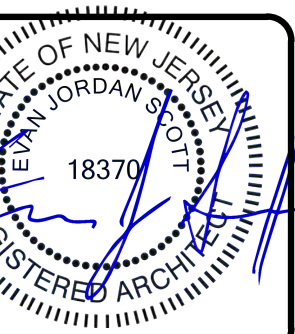
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[illegible]

U.S. ARMY CORPS OF ENGINEERS KANSAS CITY DISTRICT	DB	09/24/2021
	DRAWN BY: JWINZ	PROJECT NO.: 60520247
	CHECKED BY:	
AECOM 100 RED SCHOOLHOUSE RD CHESTNUT RIDGE, NY	MS	
	APPROVED BY: CH	

ROEBLING STEEL SUPERFUND SITE  
VILLAGE OF ROEBLING - FLORENCE TOWNSHIP, NJ  
OPERABLE UNIT 4 - PRESTRETCHER/PRETENSIONING SYSTEM BUILDING

## EXTERIOR ELEVATIONS



SHEET ID

A-201

**VERIFY SCALE** BAR IS ONE INCH ON ORIGINAL DRAWING

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1111

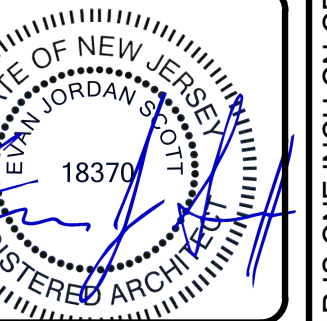
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DB	09/24/2021
DRAWN BY: JW/MZ	PROJECT N 60520247
CHECKED BY: MS	
APPROVED BY: CH	

U.S. ARMY CORPS OF ENGINEERS  
KANSAS CITY DISTRICT  
AECOM  
100 RED SCHOOLHOUSE RD  
CHESTNUT RIDGE, NY

VILLAGE OF ROEBLING - FLORENCE TOWNSHIP, NJ  
OPERABLE UNIT 4 - PRESTRETCHER/PRETENSIONING SYSTEM BUILDING

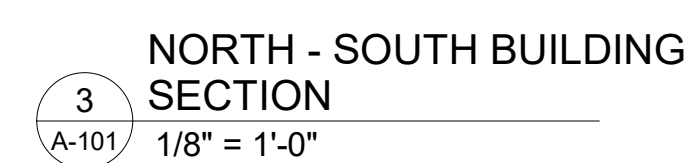
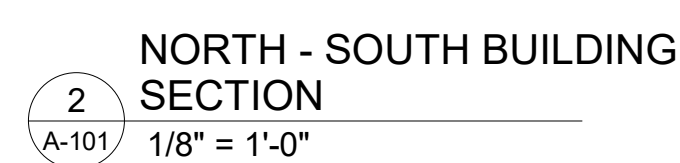
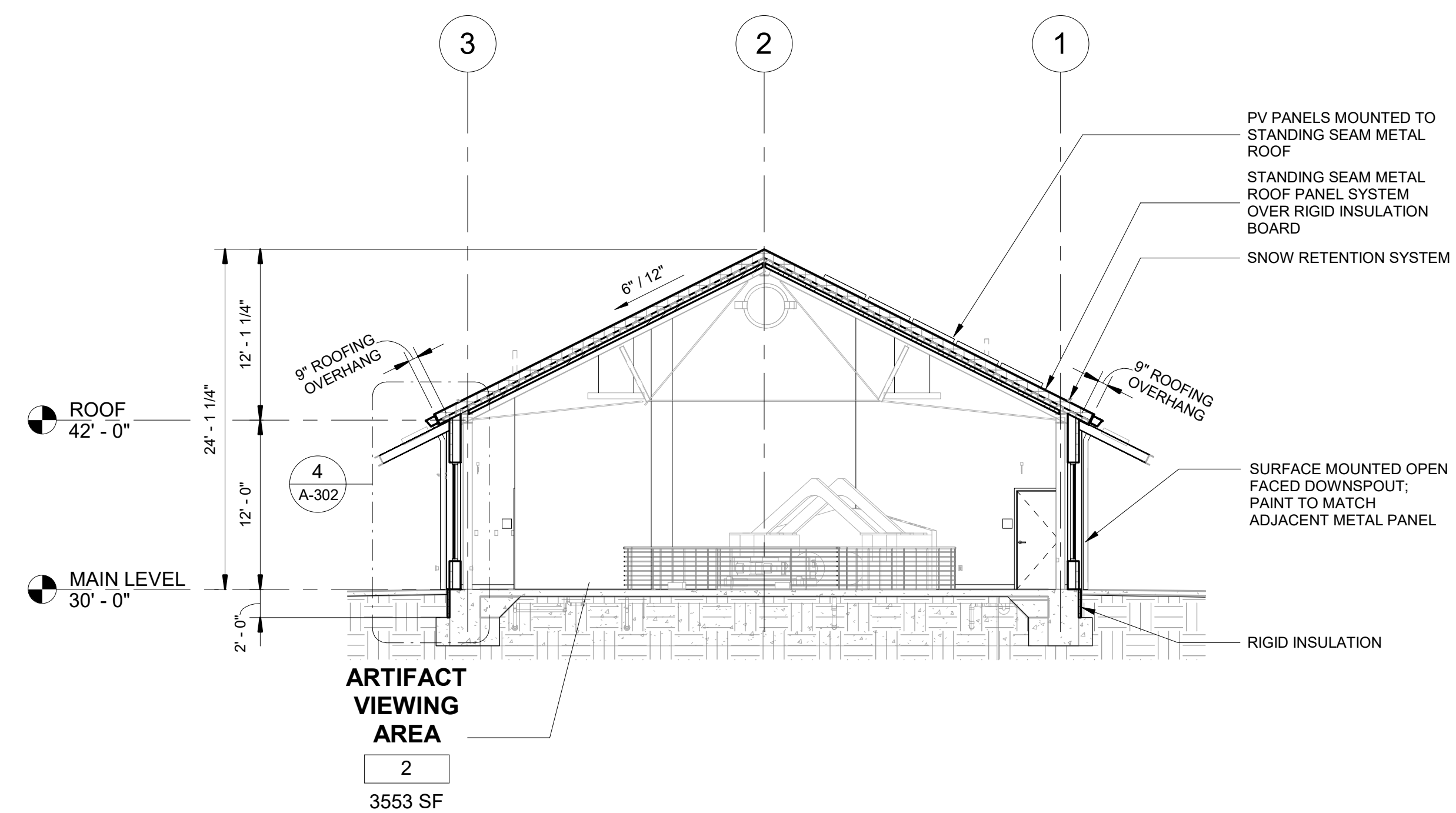
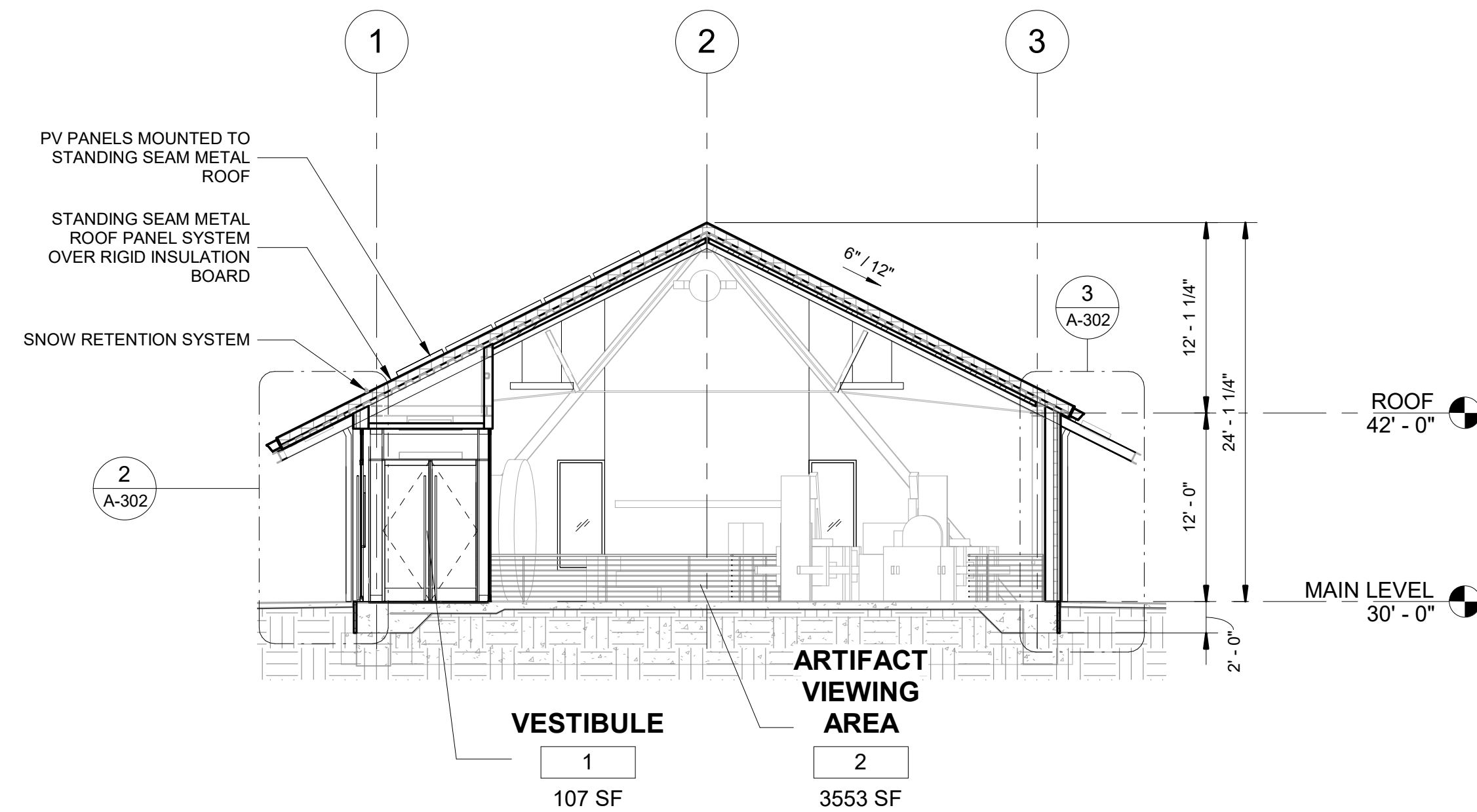
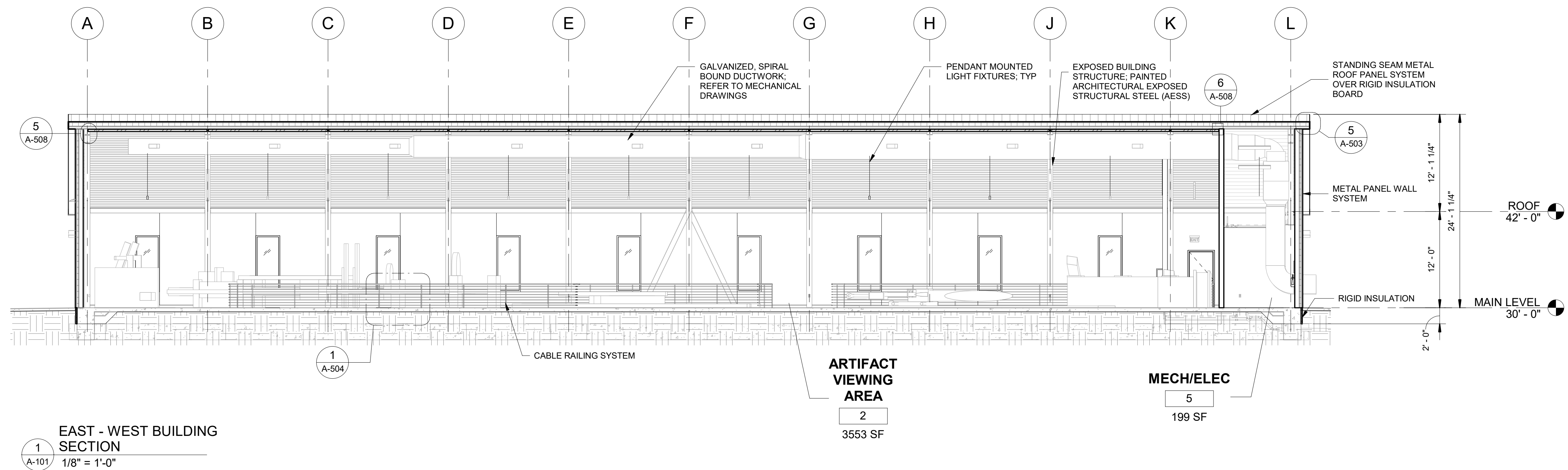
## BUILDING SECTIONS



SHEET ID

A-301

**VERIFY SCALE** BAR IS ONE INCH ON ORIGINAL DRAWING



9/24/2021 12:54:37 PM

6

5

4

3

2

1

A

B

C

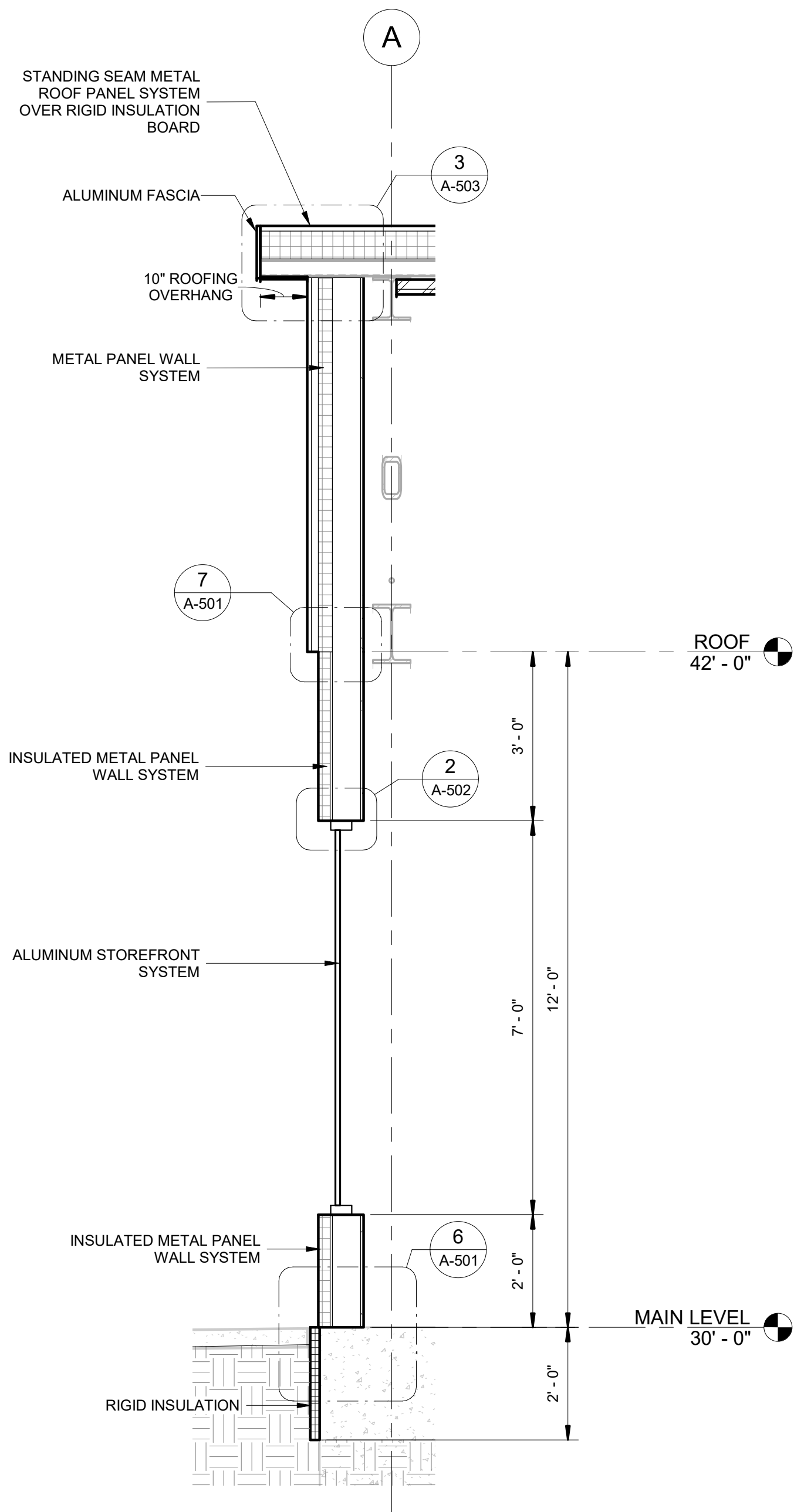
D

E

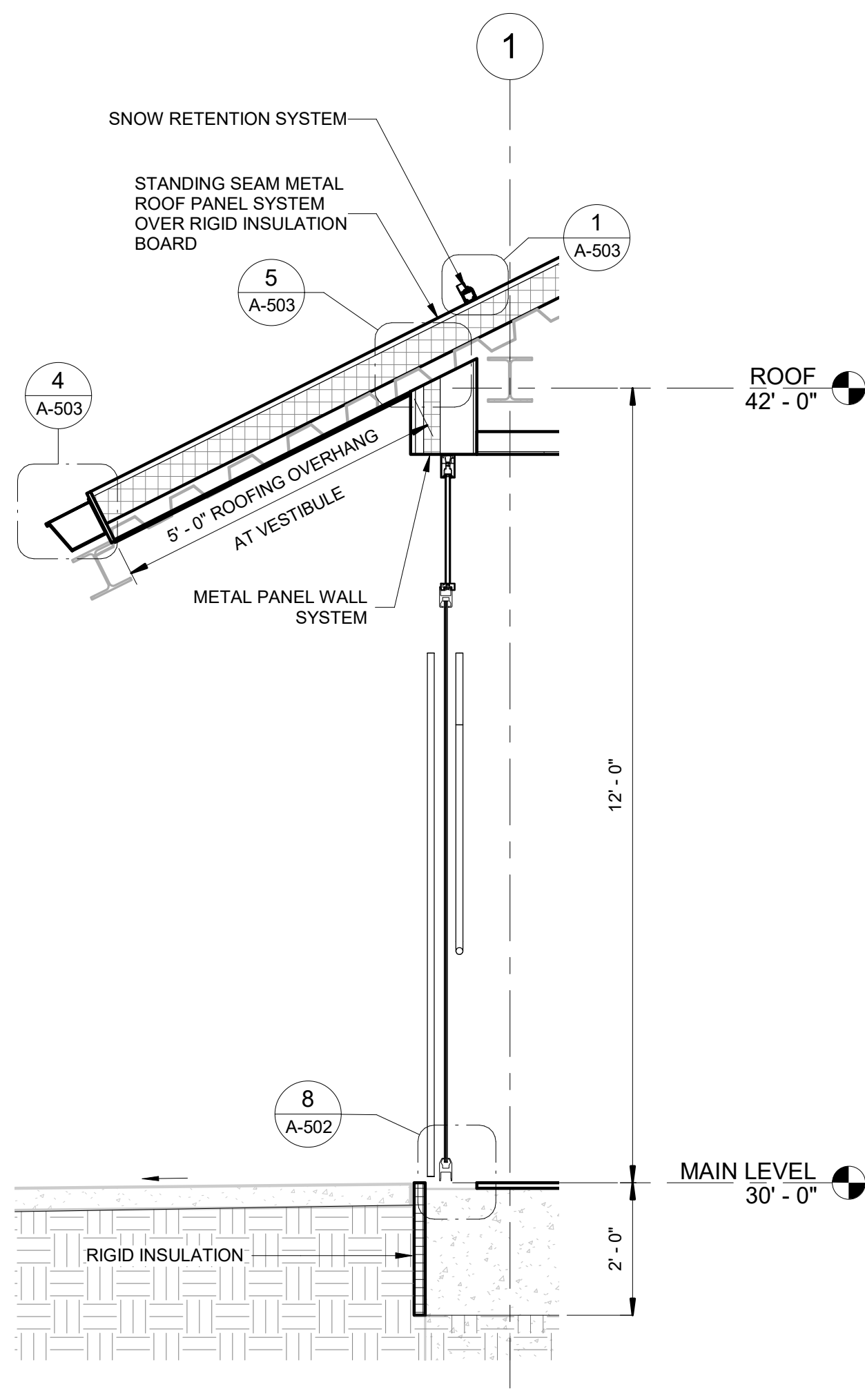
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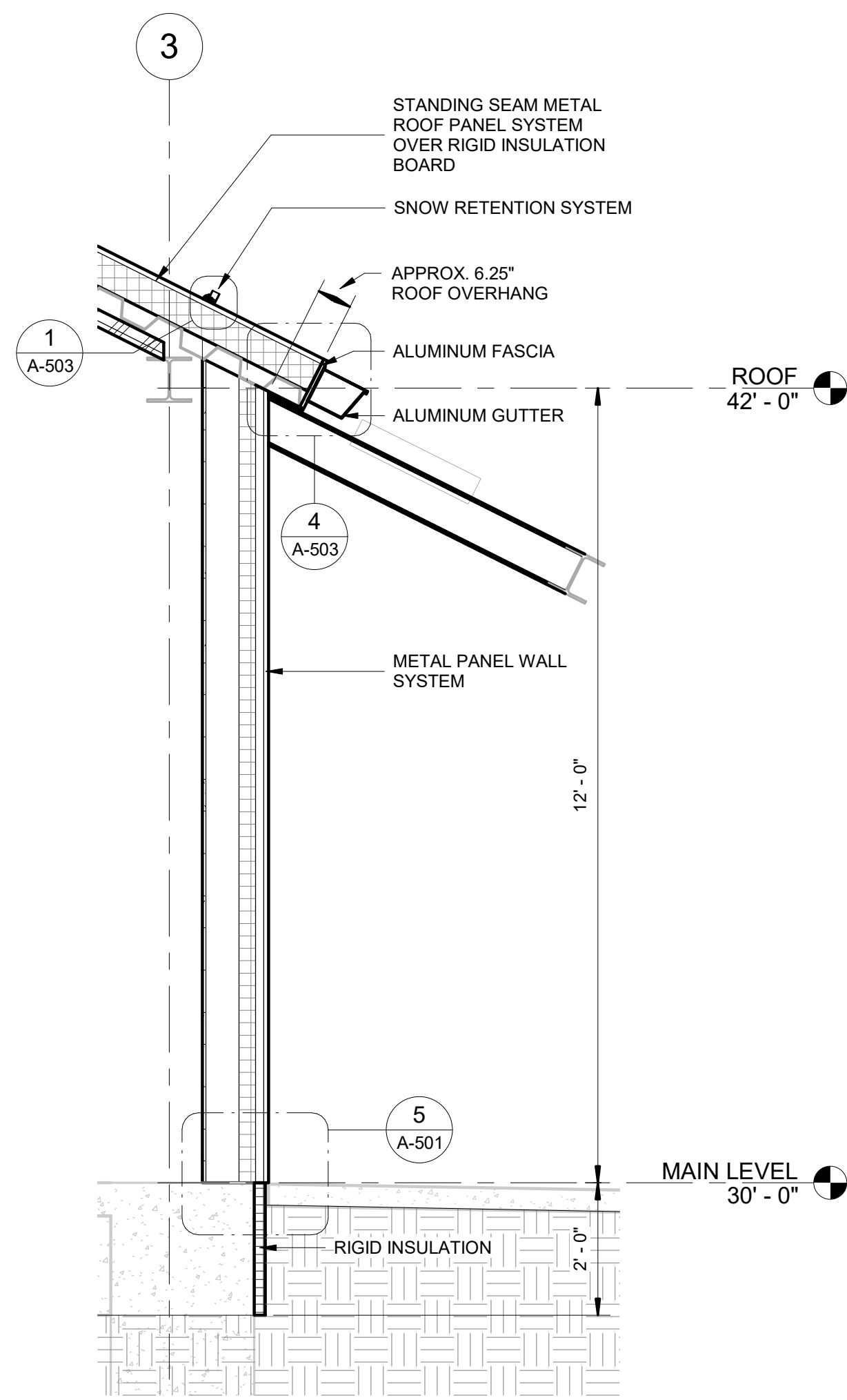
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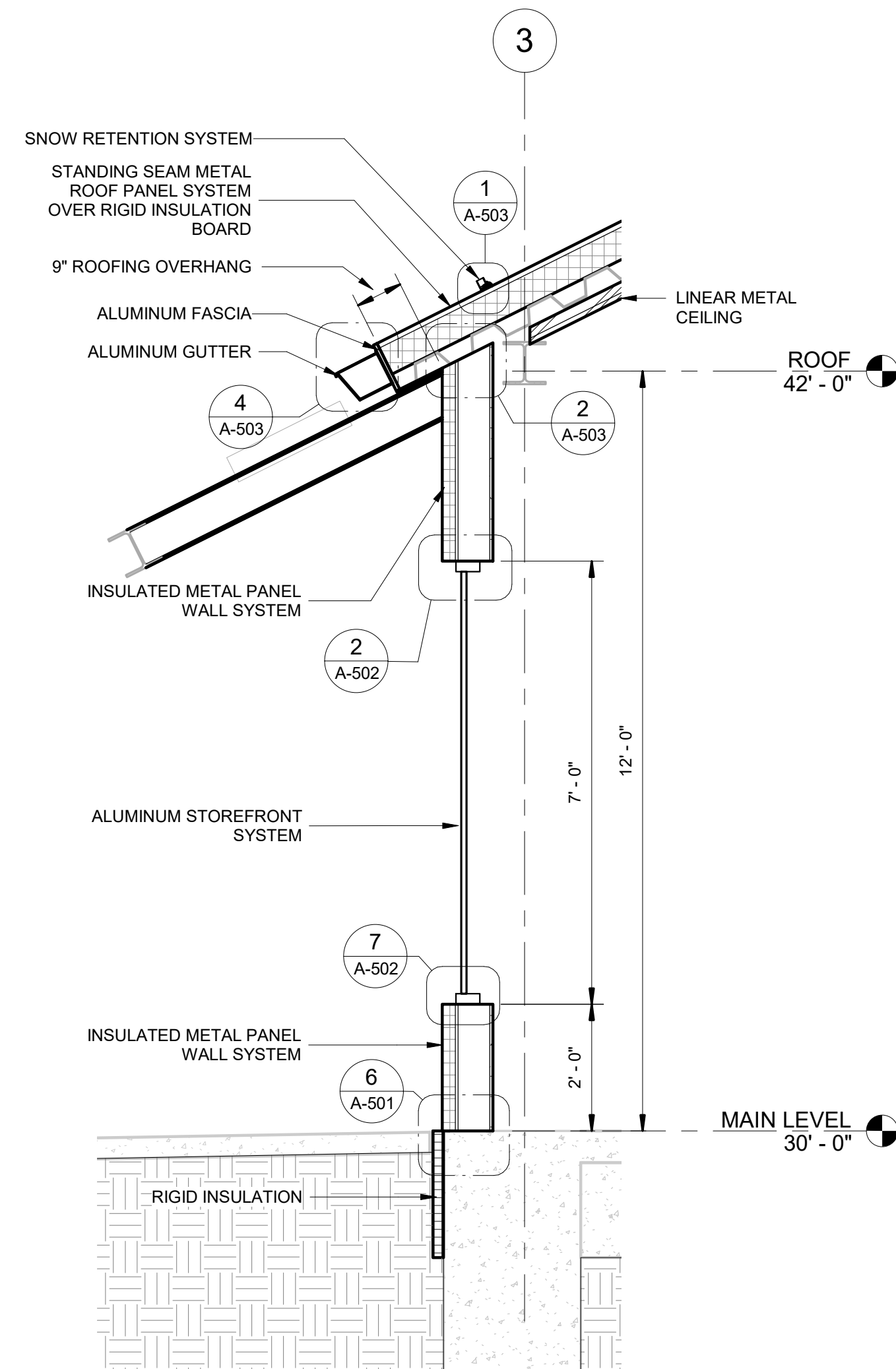
1 WALL SECTION  
A-101 1/2" = 1'-0"



2 WALL SECTION  
A-301 1/2" = 1'-0"



3 WALL SECTION  
A-301 1/2" = 1'-0"



4 WALL SECTION  
A-301 1/2" = 1'-0"



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REVISIONS

MARK

DATE

DESCRIPTION

DESIGNED BY:

DB

U.S. ARMY CORPS OF ENGINEERS  
KANSAS CITY DISTRICT

DRAWN BY:

JWW/Z

AECOM  
100 RED SCHOOLHOUSE RD  
CHESTNUT RIDGE, NY

CHECKED BY:

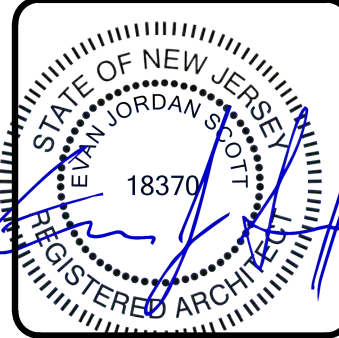
MS

APPROVED BY:

CH

ROEBLING STEEL SUPERFUND SITE  
VILLAGE OF ROEBLING - FLORENCE TOWNSHIP, NJ  
OPERABLE UNIT 4 - PRESTRETCHER/PRE-TENSIONING SYSTEM BUILDING

WALL SECTIONS

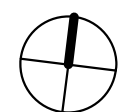
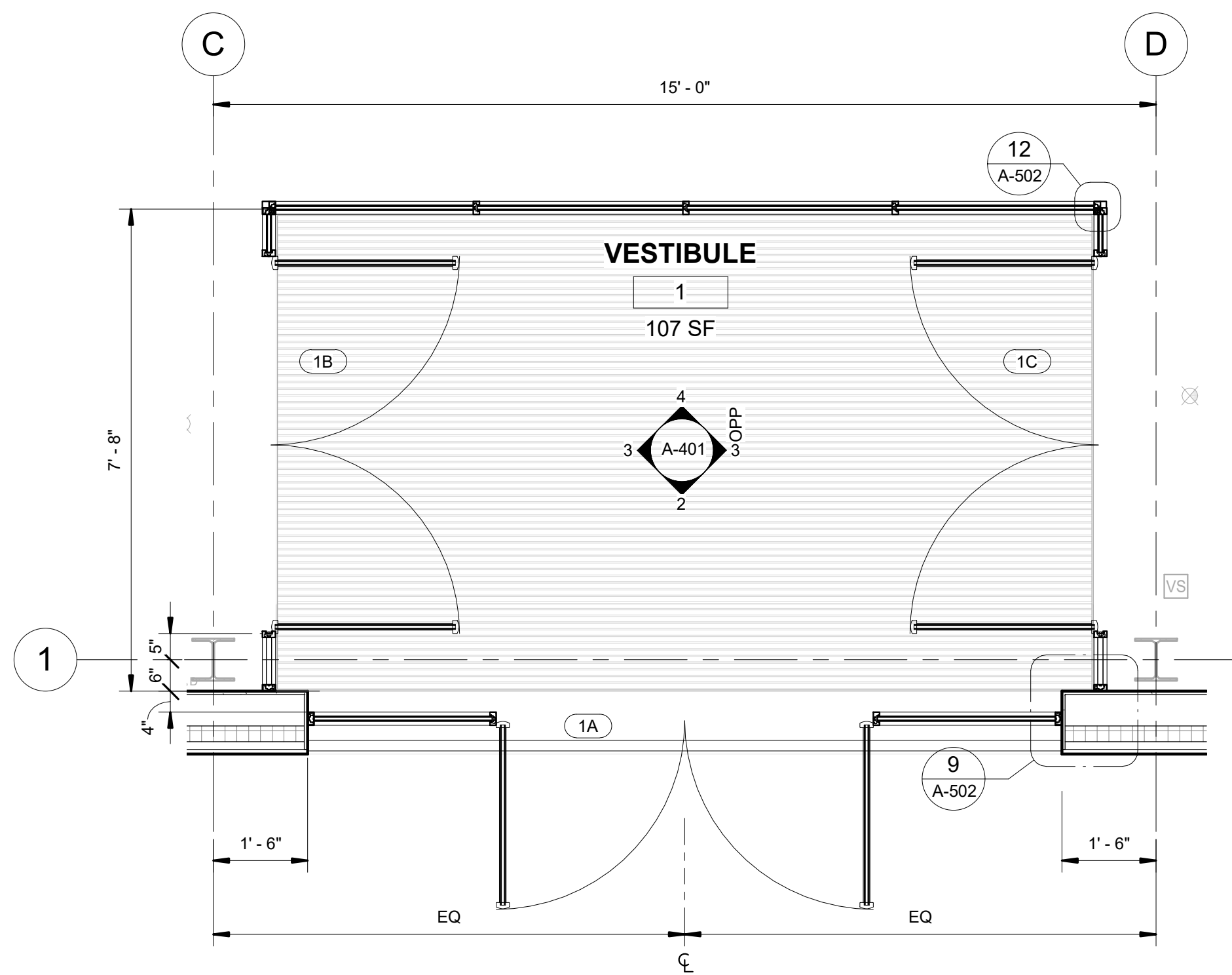


SHEET ID

A-302

VERIFY SCALE BAR IS ONE INCH ON ORIGINAL DRAWING

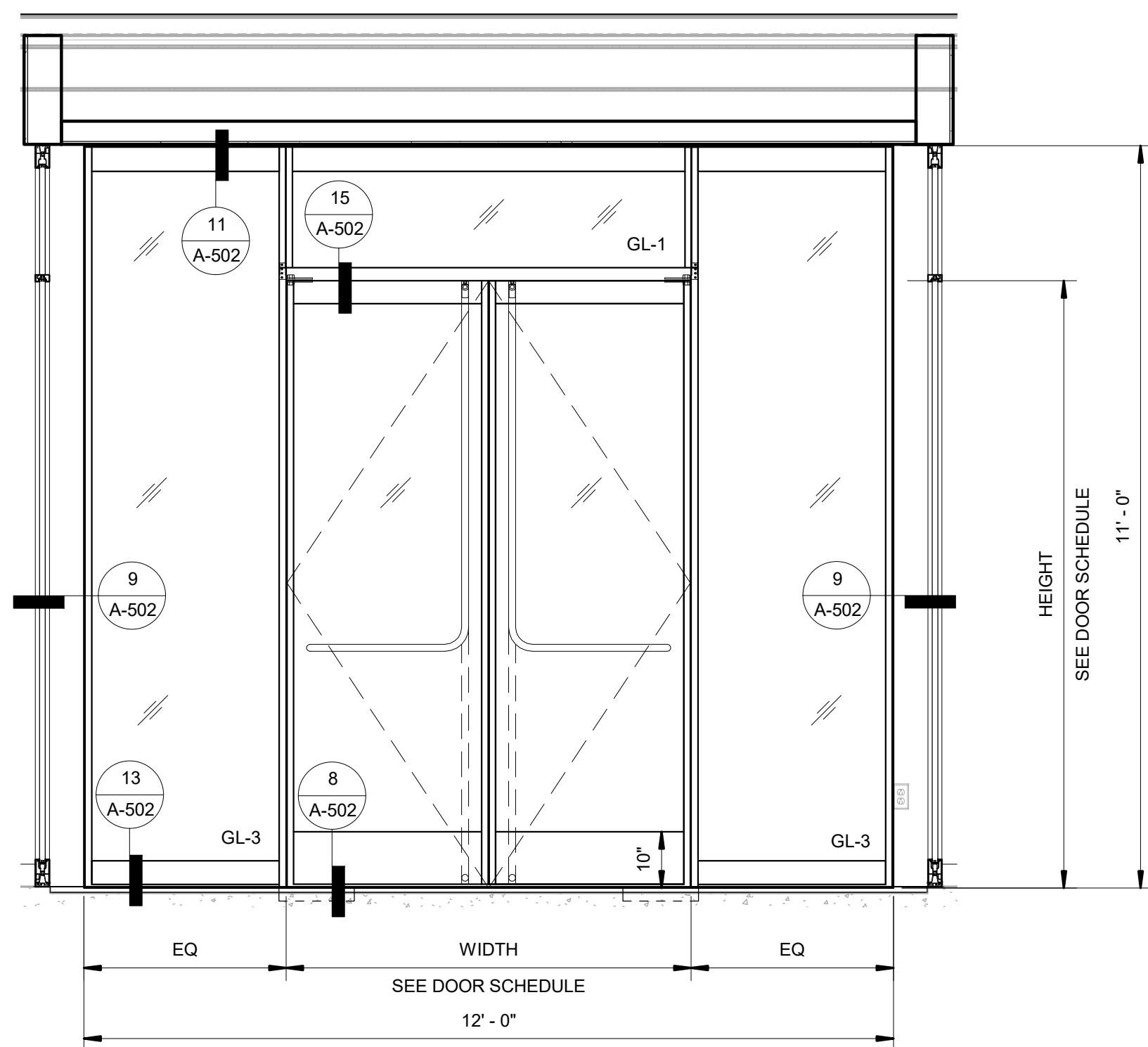




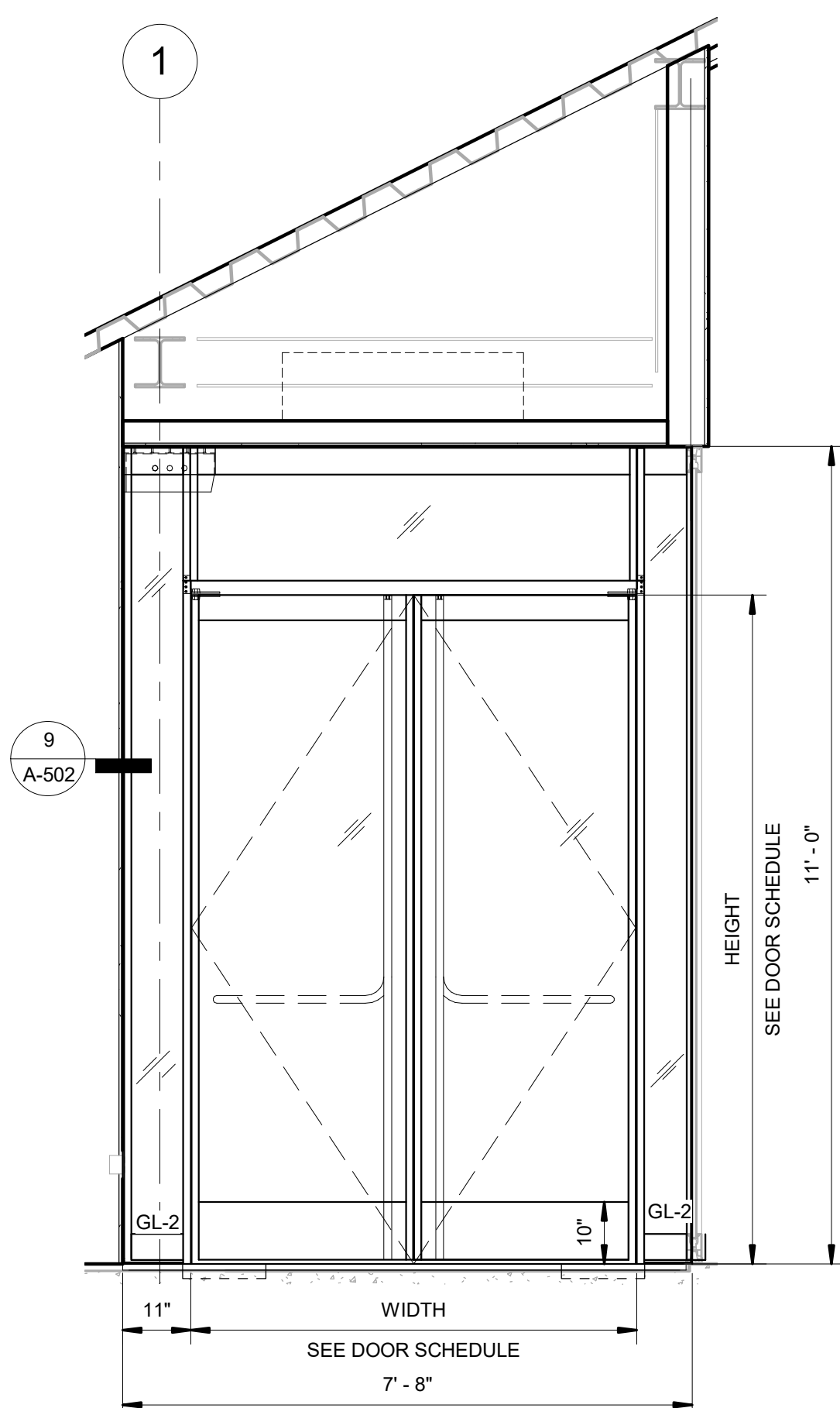
VESTIBULE ENLARGED PLAN

---

1/2" = 1'-0"



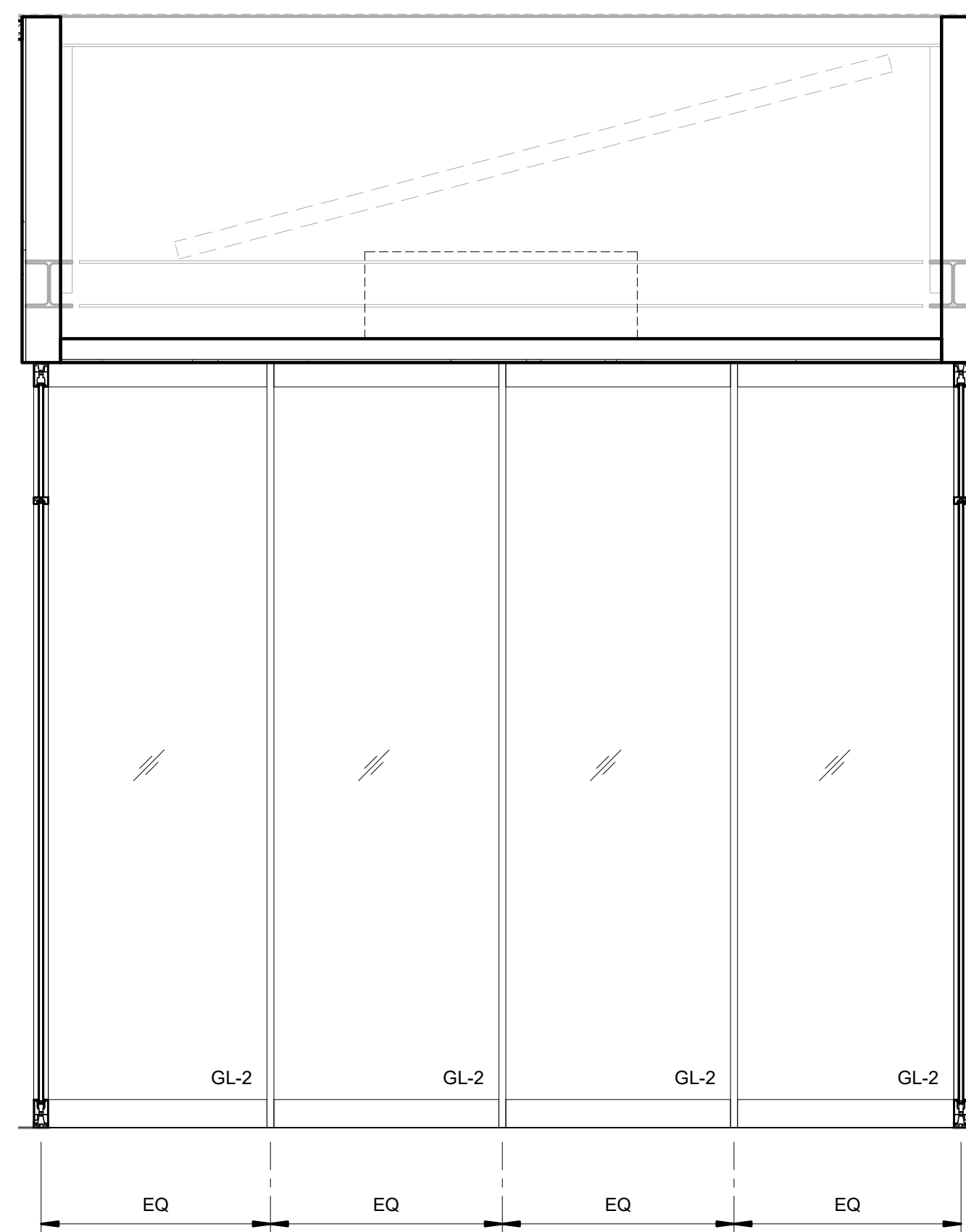
2 VESTIBULE INTERIOR  
A-401 ELEVATION - SOUTH  
1/2" = 1'-0"



3  
A-401

VESTIBULE INTERIOR  
ELEVATION - EAST/WEST

1/2" = 1'-0"



VESTIBULE INTERIOR  
ELEVATION - NORTH

---

4  
A-401  $1/2" = 1'-0"$

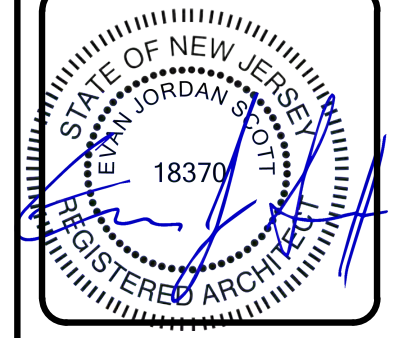
### SF PANEL TYPE LEGEND

- |      |   |
|------|---|
| GL-1 | INSULATED LOW-E GLAZING                     |
| GL-2 | TEMPERED SAFETY GLAZING,<br>CLEAR           |
| GL-3 | INSULATED LOW-E,<br>TEMPERED SAFETY GLAZING |

[illegible]

U.S. ARMY CORPS OF ENGINEERS KANSAS CITY DISTRICT	DESIGNED BY:	DB	DATE:	09/24/2021
			PROJECT NO.:	60520247
		JWW/JZ	CHECKED BY:	
		MS	APPROVED BY:	
AECOM 100 RED SCHOOLHOUSE RD CHESTNUT RIDGE, NY		CH		

ROEBLING STEEL SUPERFUND SITE  
VILLAGE OF ROEBLING - FLORENCE TOWNSHIP, NJ  
OPERABLE UNIT 4 - PRESTRETCH/RETENSIONING SYSTEM BUILDING



SHEET ID

A-401

**VERIFY SCALE** BAR IS ONE INCH ON ORIGINAL DRAWING

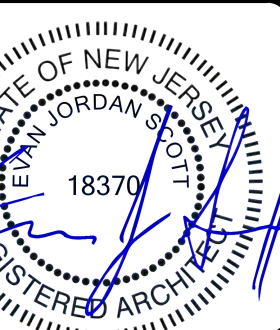
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U.S. ARMY CORPS OF ENGINEERS KANSAS CITY DISTRICT AECOM 100 RED SCHOOLHOUSE RD CHESTNUT RIDGE, NY	DB	PROJECT NO.:	09/24/2021
	DRAWN BY:		
	JW/WZ	60520247	
	CHECKED BY:	MS	
	APPROVED BY:	CH	

ROEBLING STEEL SUPERFUND SITE  
VILLAGE OF ROEBLING - FLORENCE TOWNSHIP, NJ  
OPERABLE UNIT 4 - PRESTRETCHER/PRETENSIONING SYSTEM BUILDING

# ENLARGED PLANS AND ELEVATIONS



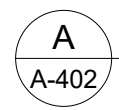
SHEET ID

A-402

**VERIFY SCALE** BAR IS ONE INCH ON ORIGINAL DRAWING



**FACILITIES ENLARGED PLAN**  
1/4" = 1'-0"



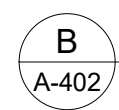
DRINKING FOUNTAIN  
ELEVATION  
1/4" = 1'-0"



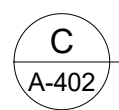
RESTROOM ENLARGED PLAN

---

1/2" = 1'-0"



RESTROOM INTERIOR  
ELEVATION - NORTH  
1/2" = 1'-0"



RESTROOM INTERIOR  
ELEVATION - EAST  
1/2" = 1'-0"



RESTROOM INTERIOR  
ELEVATION - SOUTH  
1/2" = 1'-0"



RESTROOM INTERIOR  
ELEVATION - WEST  
1/2" = 1'-0"

WASHROOM ACCESSORIES	
TYPE MARK	DESCRIPTION
WA-01	36" HORIZONTAL GRAB BAR AT BACK WALL
WA-02	42" HORIZONTAL GRAB BAR AT SIDE WALL
WA-03	18" VERTICAL GRAB BAR AT SIDE WALL
WA-05	GLASS MIRROR
WA-06	SOAP DISPENSER
WA-07	PAPER TOWEL DISPENSER W/ TRASH RECEPTACLE
WA-12	MOP & BROOM HOLDER (SEE A-101)

1	METAL PANEL WALL ASSEMBLY
	3" = 1'-0"

2	INSULATED METAL PANEL WALL ASSEMBLY
	3" = 1'-0"

3	METAL PANEL OUTSIDE CORNER
	3" = 1'-0"

4	WALL JAMB @ INSULATED PANEL TRANSITION 3" = 1'-0"
---	---

5	METAL PANEL BASE @ SLAB
A-302	3" = 1'-0"

6	WALL BASE @ INSULATED METAL PANEL
A-302	3" = 1'-0"

7	WALL PANEL TRANSITION
A-302	3" = 1'-0"

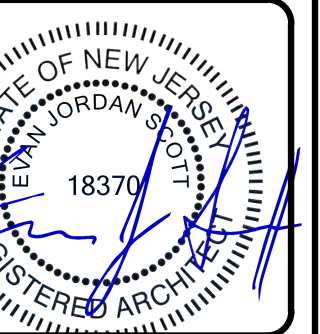
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[illegible]

U.S. ARMY CORPS OF ENGINEERS KANSAS CITY DISTRICT  AECOM 100 RED SCHOOLHOUSE RD CHESTNUT RIDGE, NY	DB	PROJECT NO.:
		69520247
	DRAWN BY: JW/WZ	CHECKED BY:
		MS
	APPROVED BY:	
	CH	

ROEBLING STEEL SUPERFUND SITE  
VILLAGE OF ROEBLING - FLORENCE TOWNSHIP, NJ  
OPERABLE UNIT 4 - PRESTRETCHER/PRETENSIONING SYSTEM BUILDING

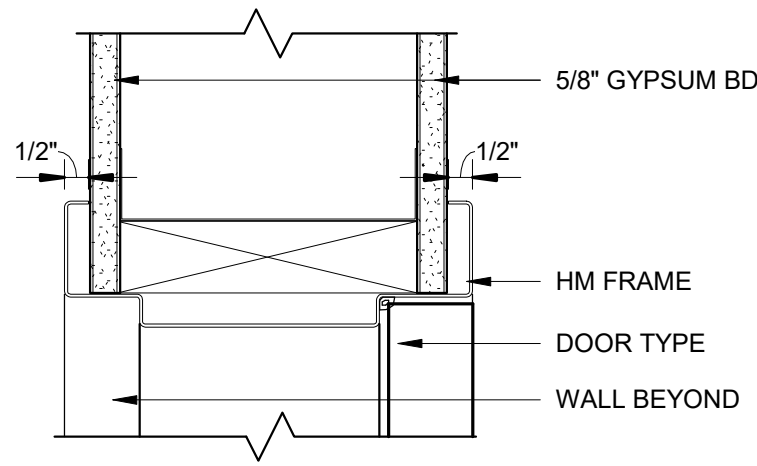
## WALL ASSEMBLY DETAILS



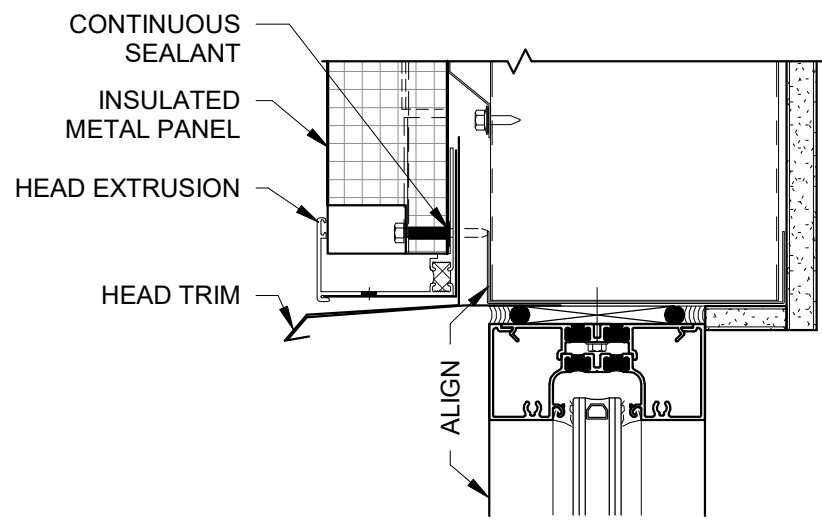
SHEET ID

A-501

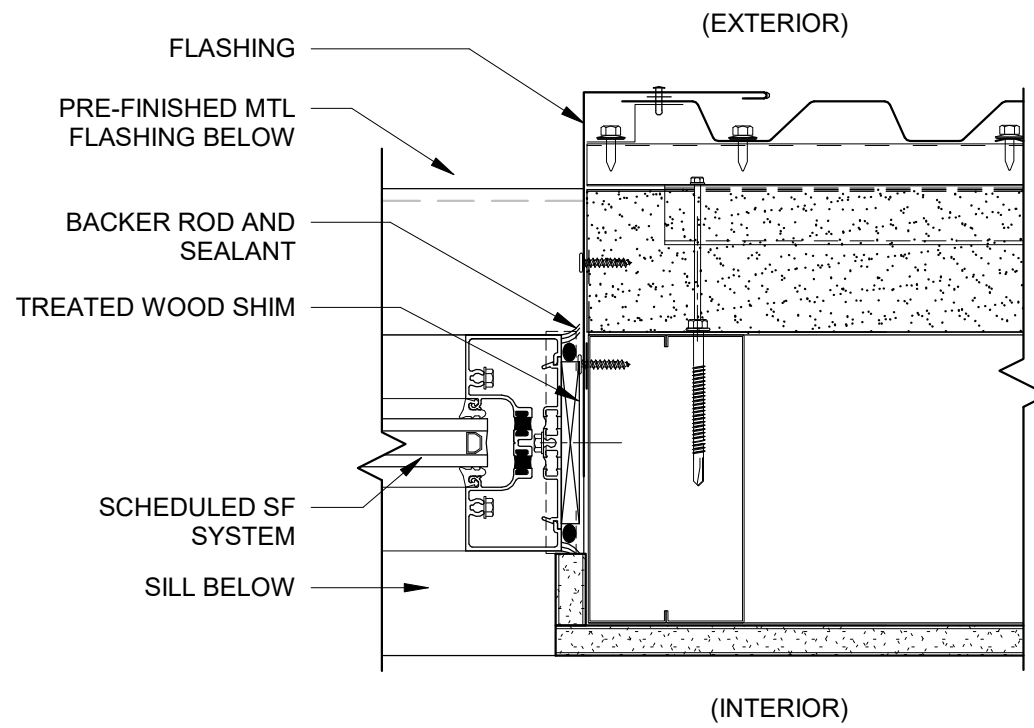
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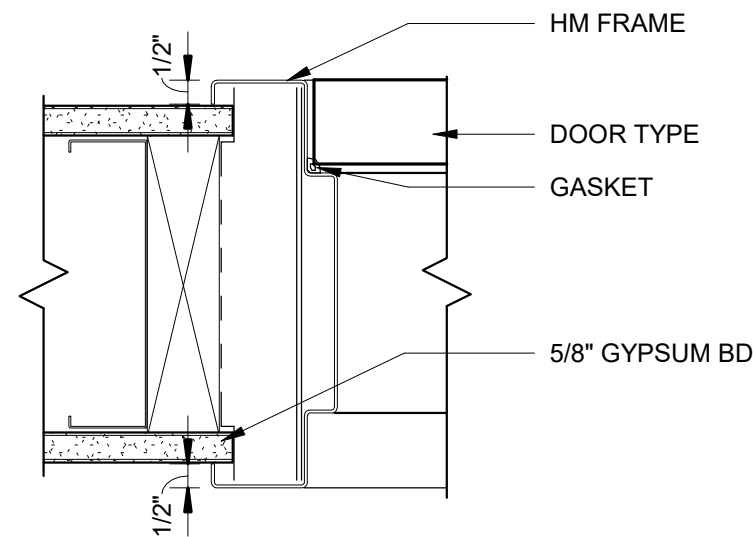
1 HM DOOR HEAD @ INTERIOR  
GYP  
3" = 1'-0"



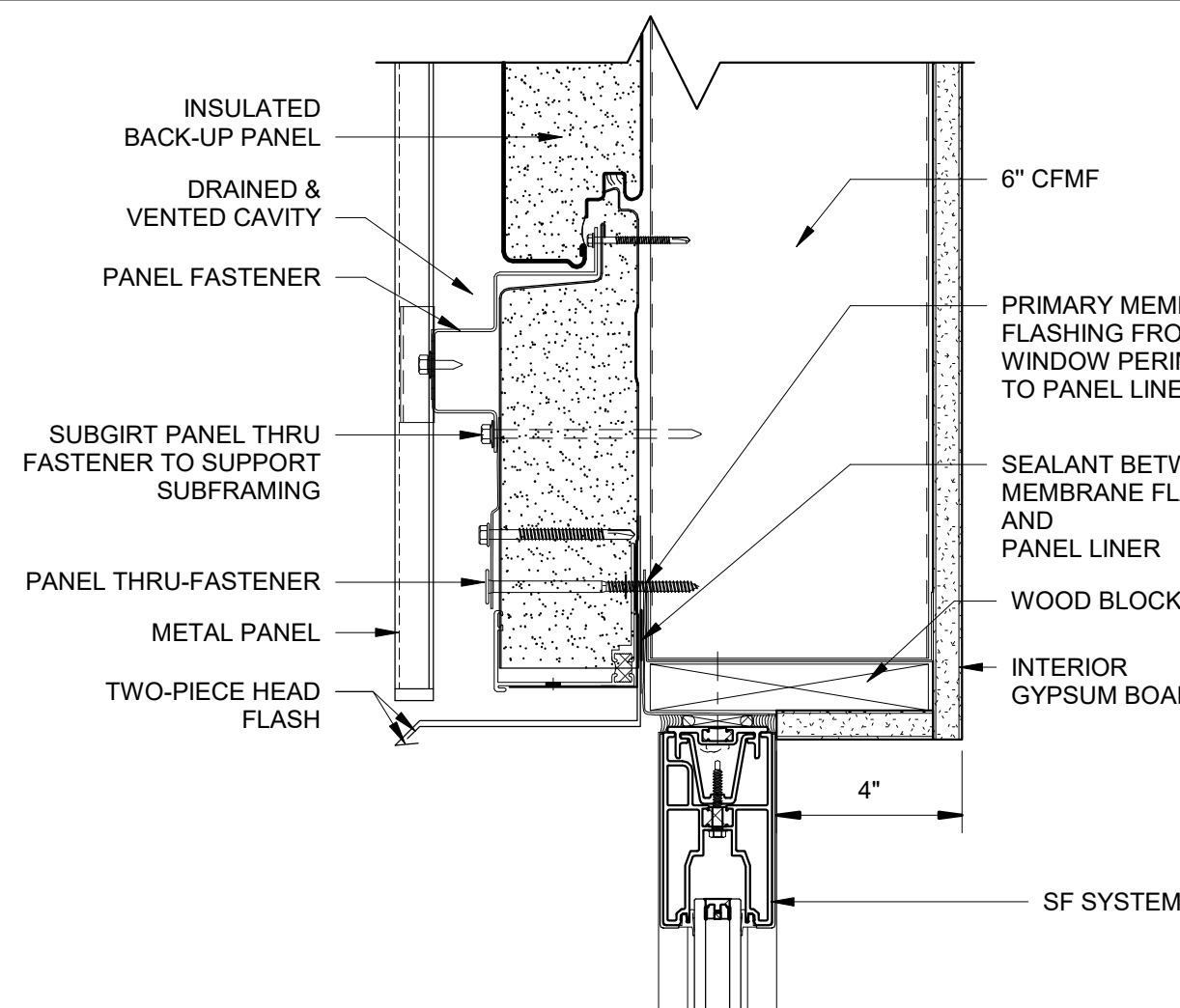
2 SF HEAD @ INSULATED  
METAL PANEL  
A-302 3" = 1'-0"



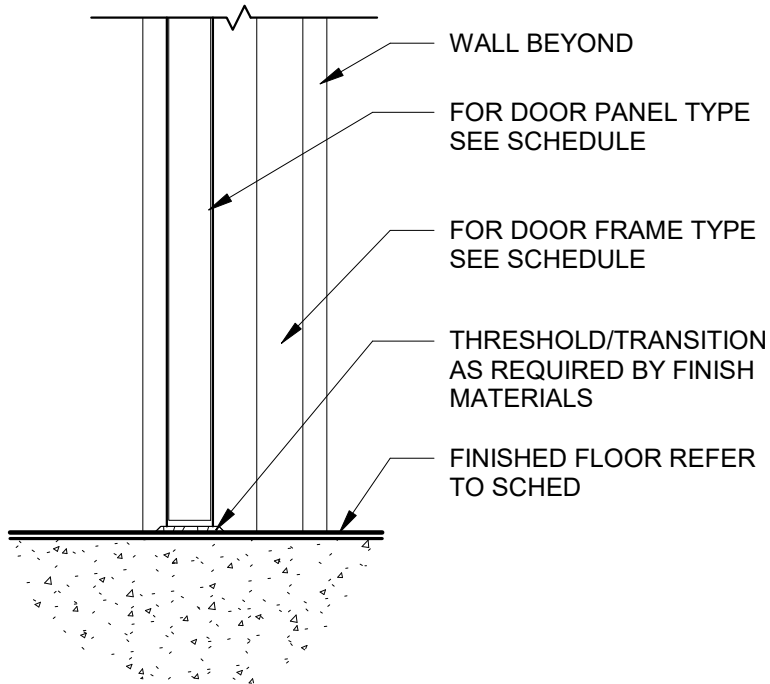
3 WINDOW JAMB @ METAL  
PANEL ASSEMBLY  
3" = 1'-0"



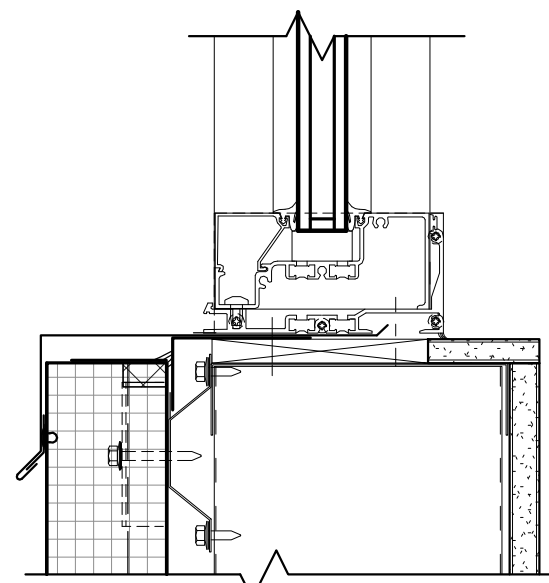
4 HM DOOR JAMB @ INTERIOR  
GYP  
3" = 1'-0"



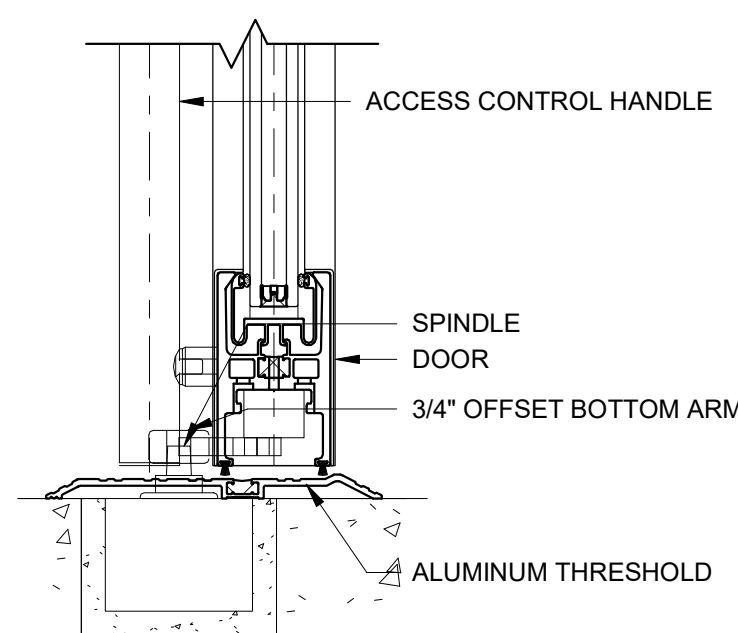
5 SF HEAD @ METAL PANEL  
3" = 1'-0"



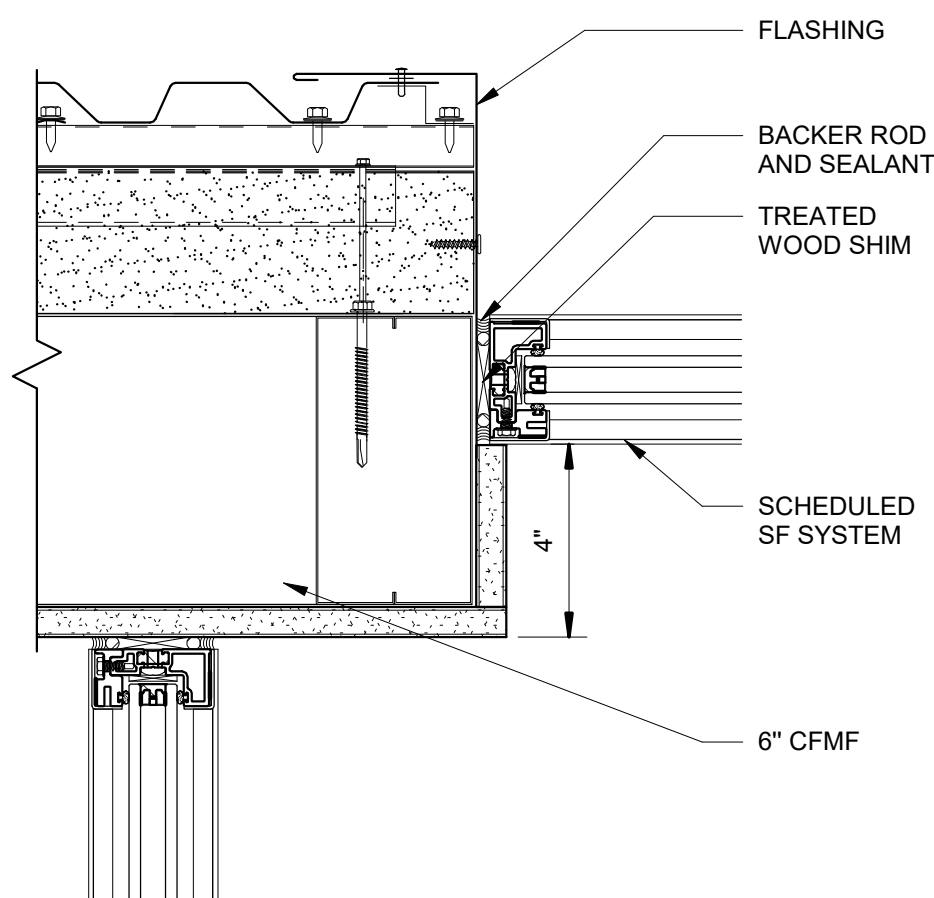
6 DOOR SILL @ INTERIOR  
WALL  
1 1/2" = 1'-0"



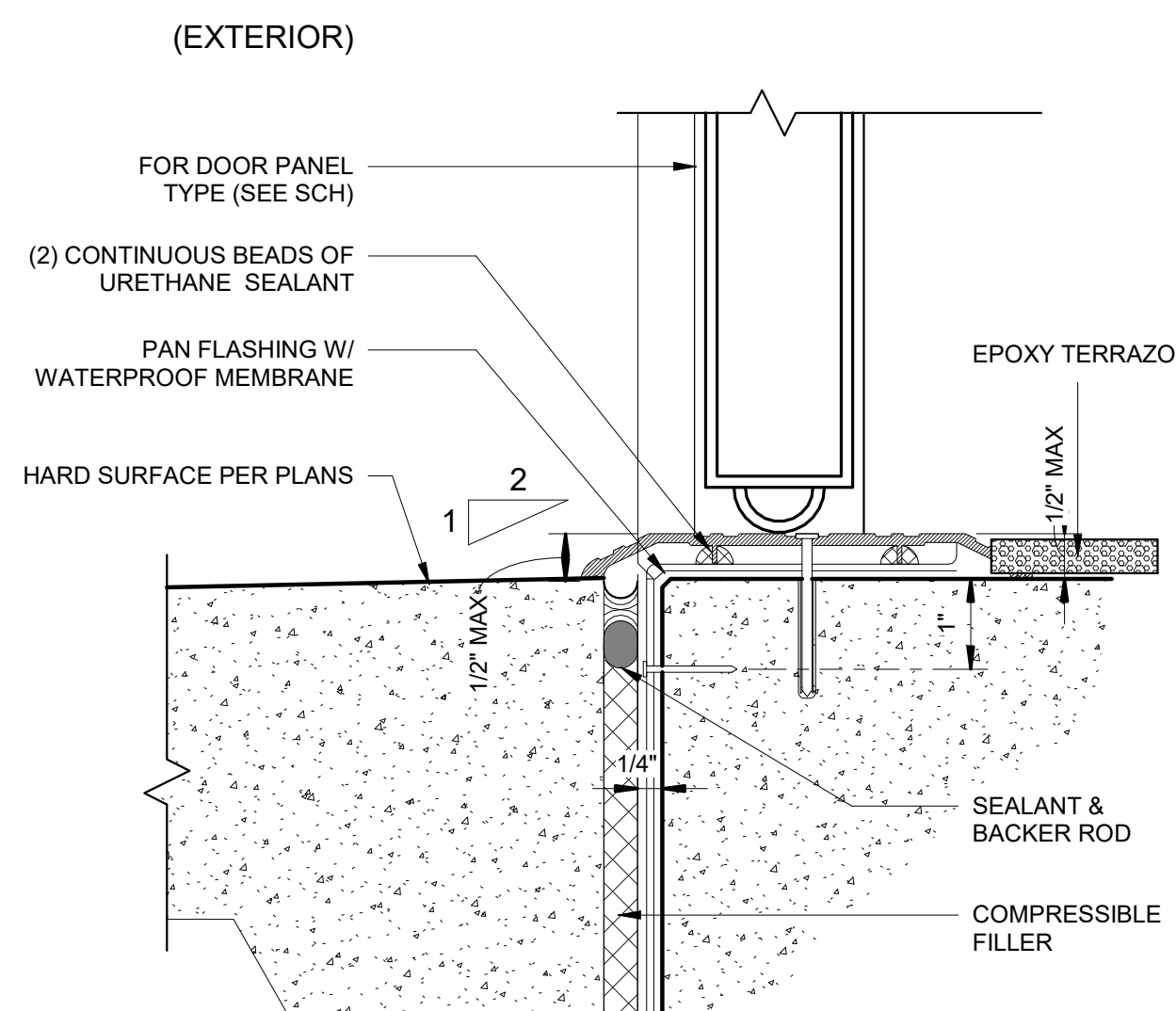
7 SF SILL @ INSULATED  
METAL PANEL  
A-302 3" = 1'-0"



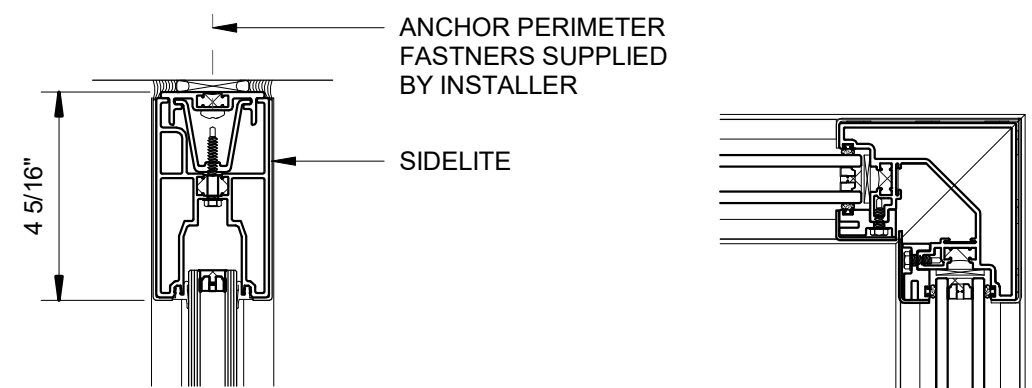
8 SF DOOR SILL  
A-302 3" = 1'-0"



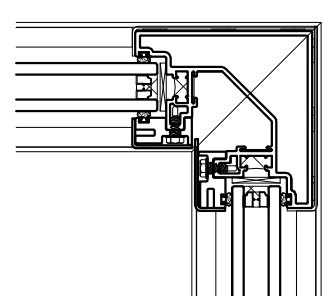
9 ENTRY SIDELITE JAMBS  
A-401 3" = 1'-0"



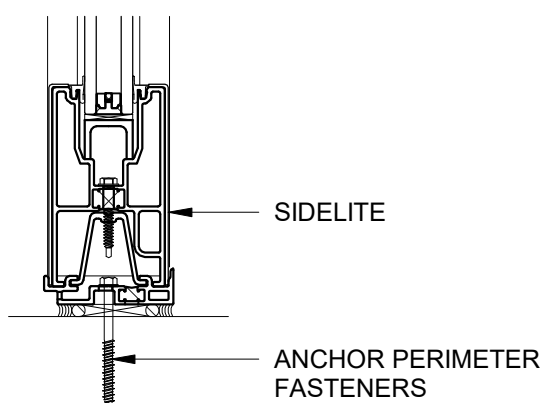
10 HM DOOR SILL @ EXTERIOR  
6" = 1'-0"



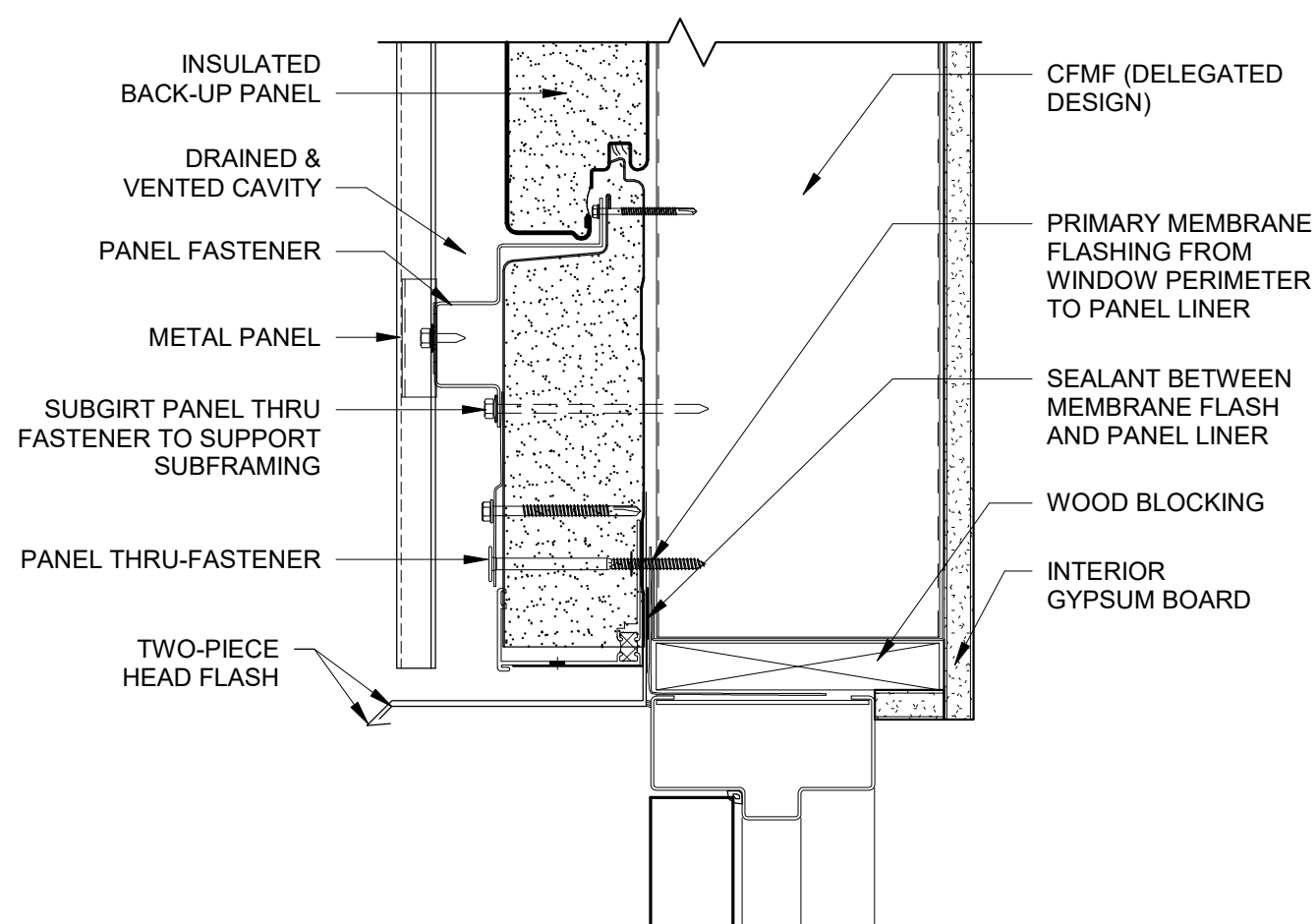
11 SIDELITE HEAD  
A-401 3" = 1'-0"



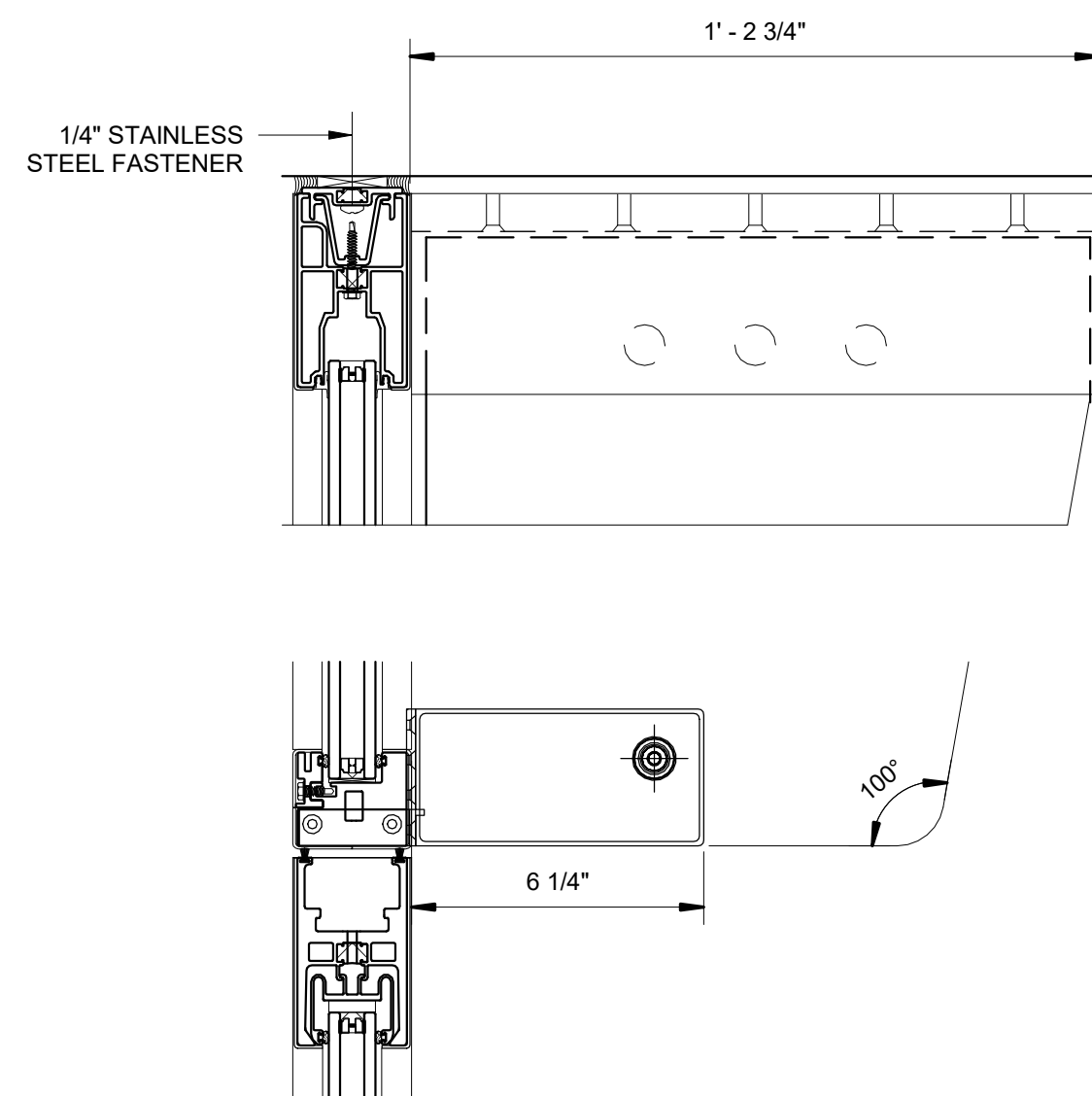
12 SF INSIDE CORNER  
A-401 3" = 1'-0"



13 SIDELITE SILL  
A-401 3" = 1'-0"



14 DOOR HEAD @ METAL  
PANEL  
3" = 1'-0"



15 DOOR HEAD AT TRANSOM  
FIN  
A-401 3" = 1'-0"



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REVISIONS

MARK	DATE	DESCRIPTION

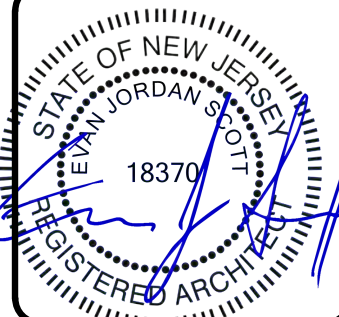
DESIGNED BY:	DATE:
DB	09/24/2021
DRAWN BY:	PROJECT NO.:
JWW/Z	60520247
CHECKED BY:	
MS	
APPROVED BY:	
CH	

U.S. ARMY CORPS OF ENGINEERS  
KANSAS CITY DISTRICT

AECOM  
100 RED SCHOOLHOUSE RD  
CHESTNUT RIDGE, NY

ROEBLING STEEL SUPERFUND SITE  
VILLAGE OF ROEBLING - FLORENCE TOWNSHIP, NJ  
OPERABLE UNIT 4 - PRESTRETCHER/PRE-TENSIONING SYSTEM BUILDING

OPENING DETAILS



SHEET ID

A-502

VERIFY SCALE BAR IS ONE INCH ON ORIGINAL DRAWING

9/24/2021 12:54:56 PM

1

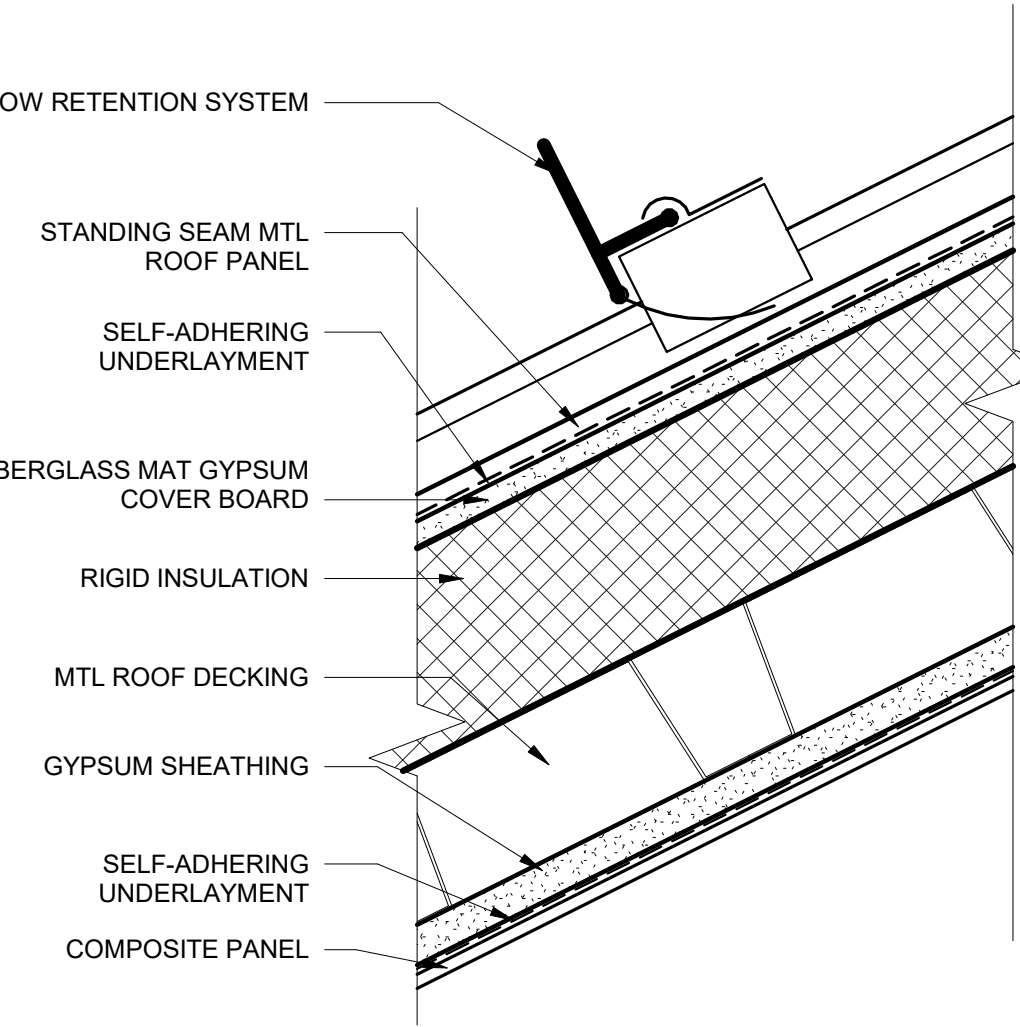
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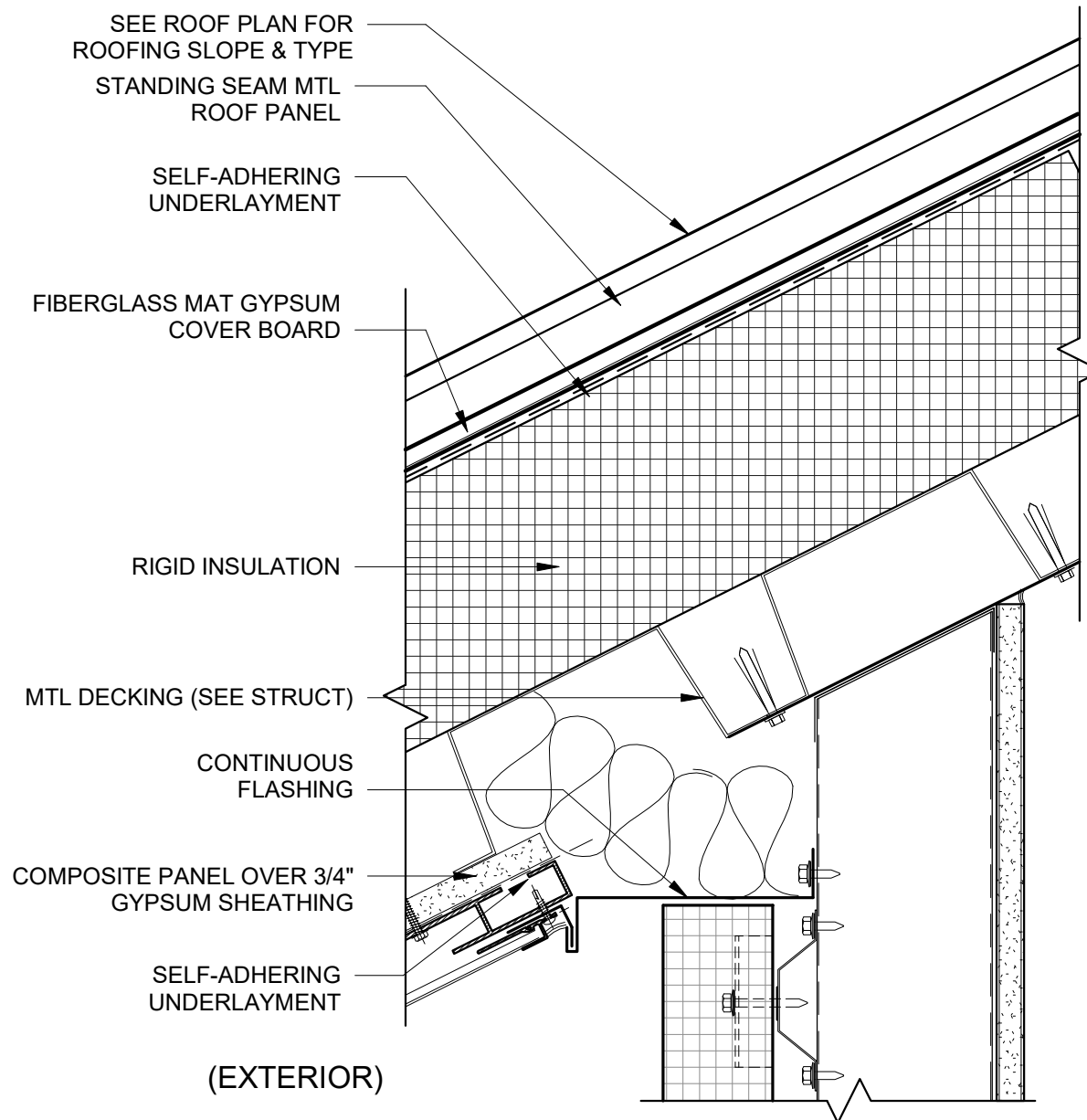
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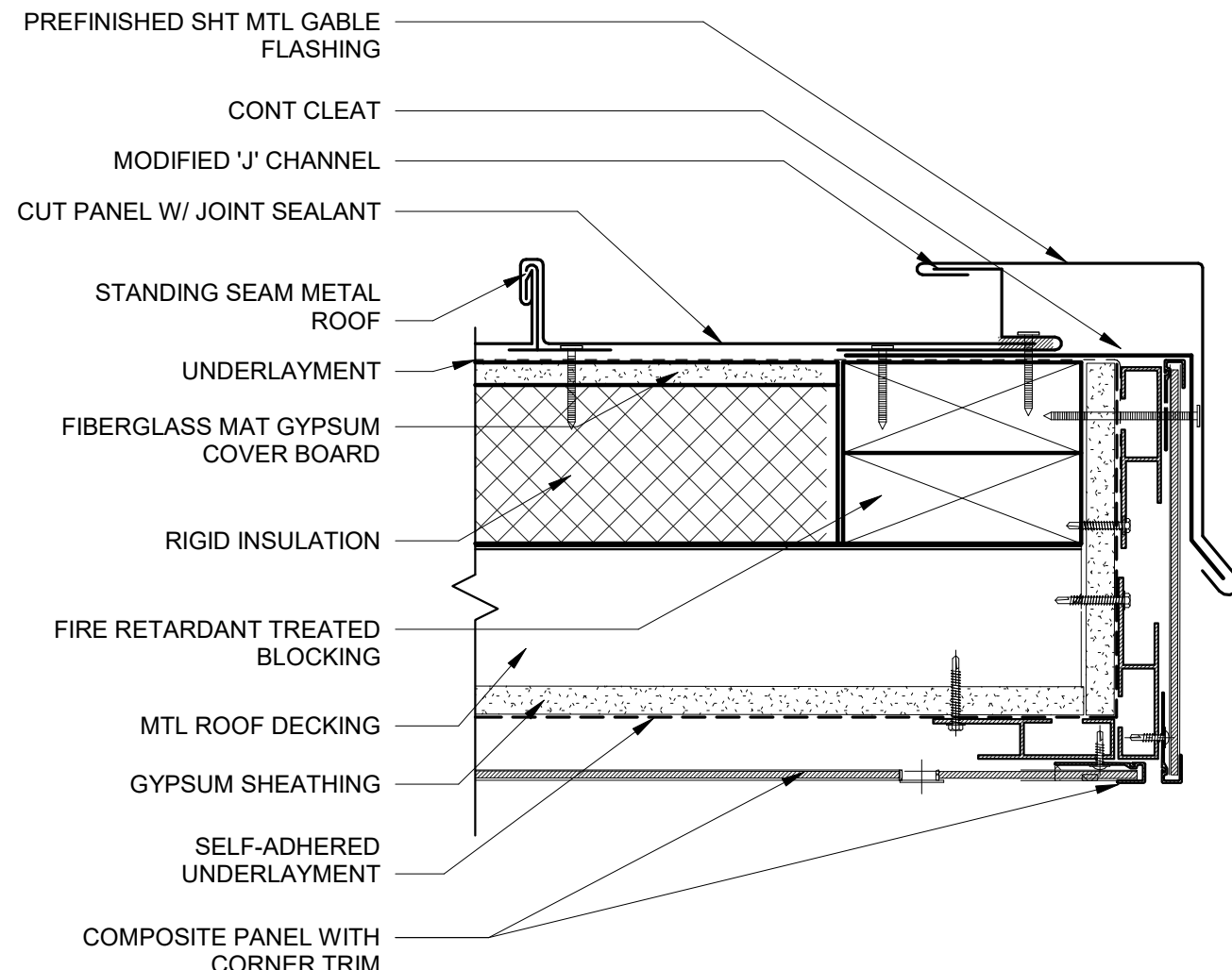
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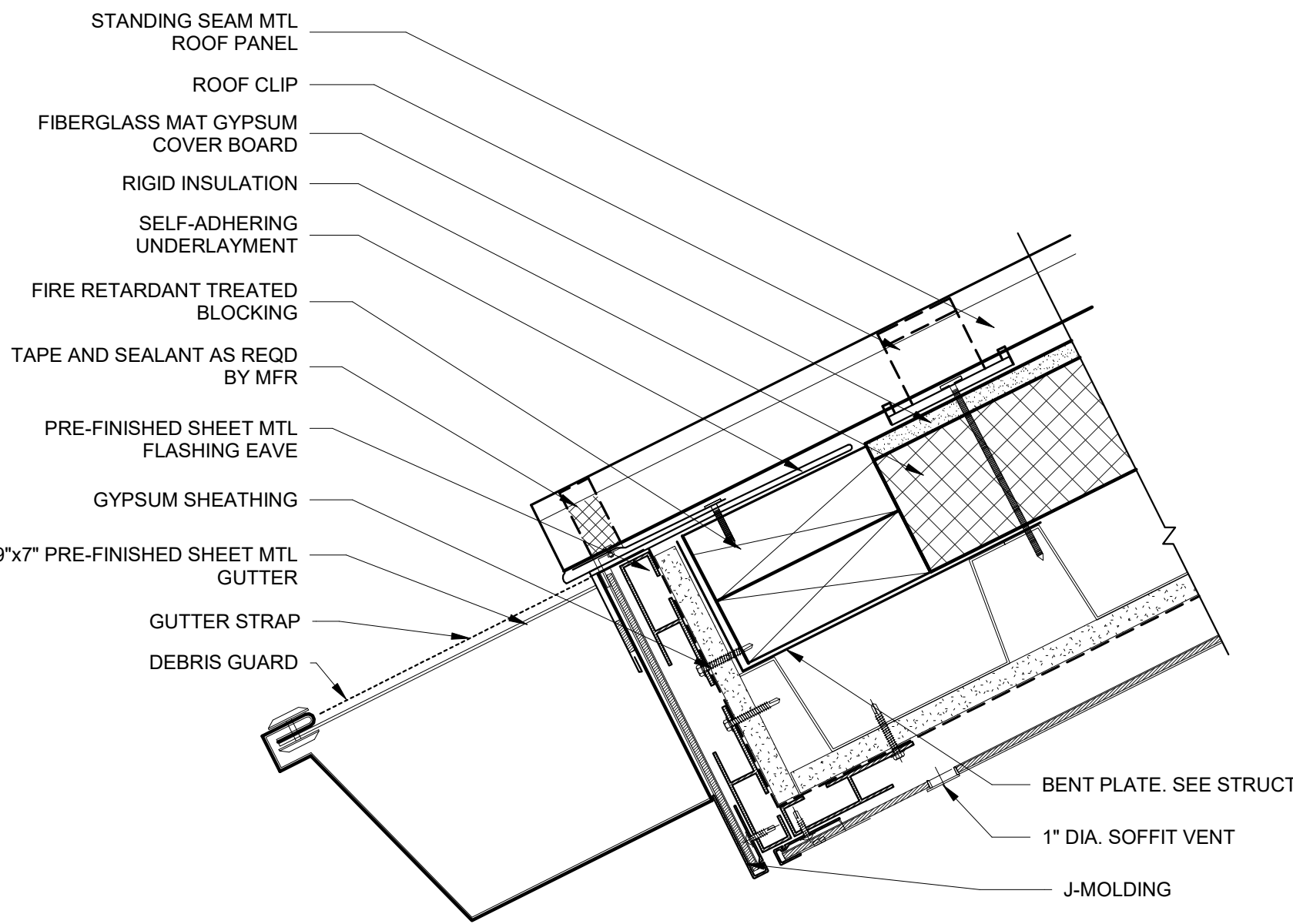
1 SNOW RETENTION SYSTEM  
A-302 3" = 1'-0"



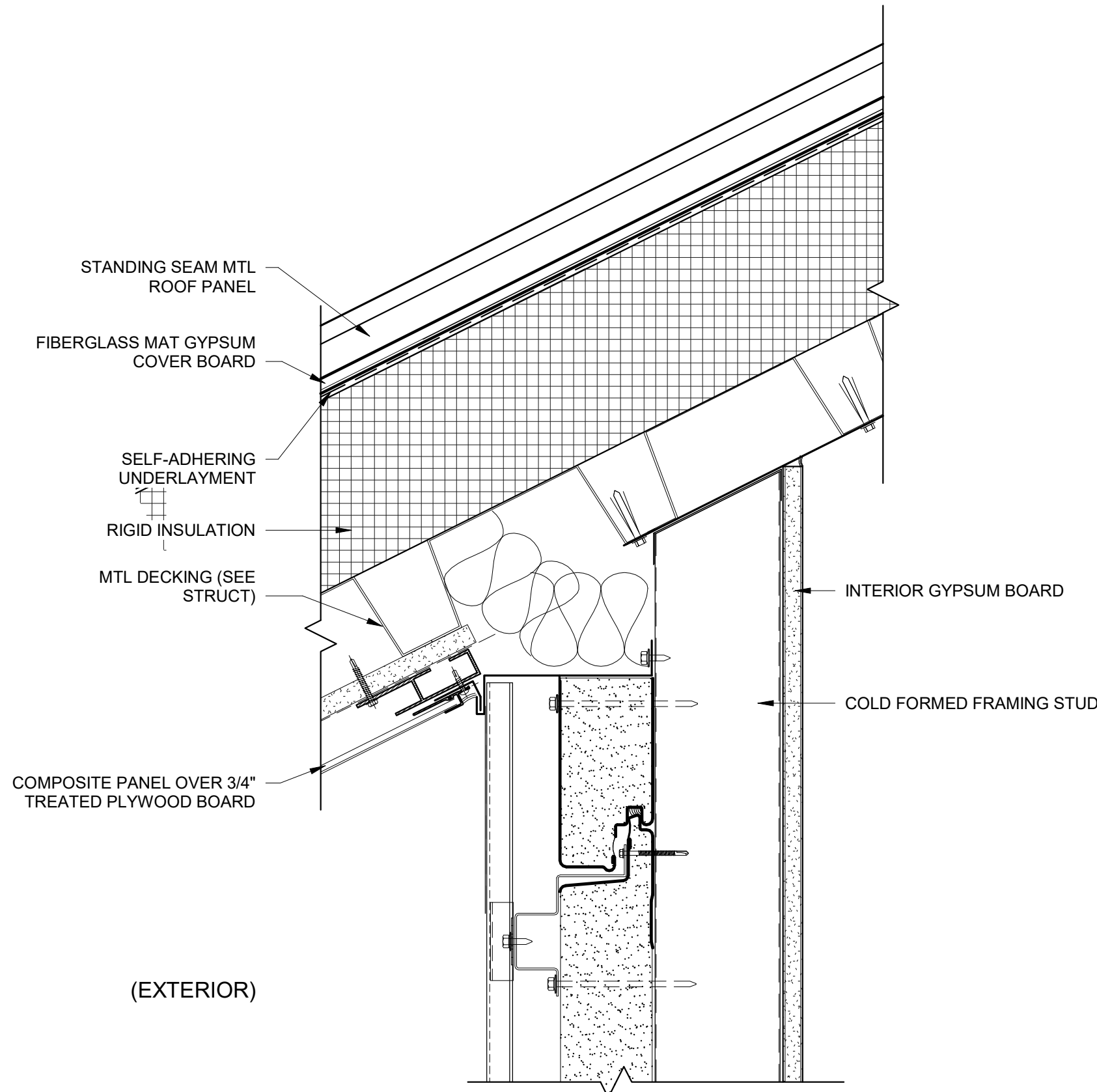
2 INSULATED METAL PANEL @ DECKING  
A-302 3" = 1'-0"



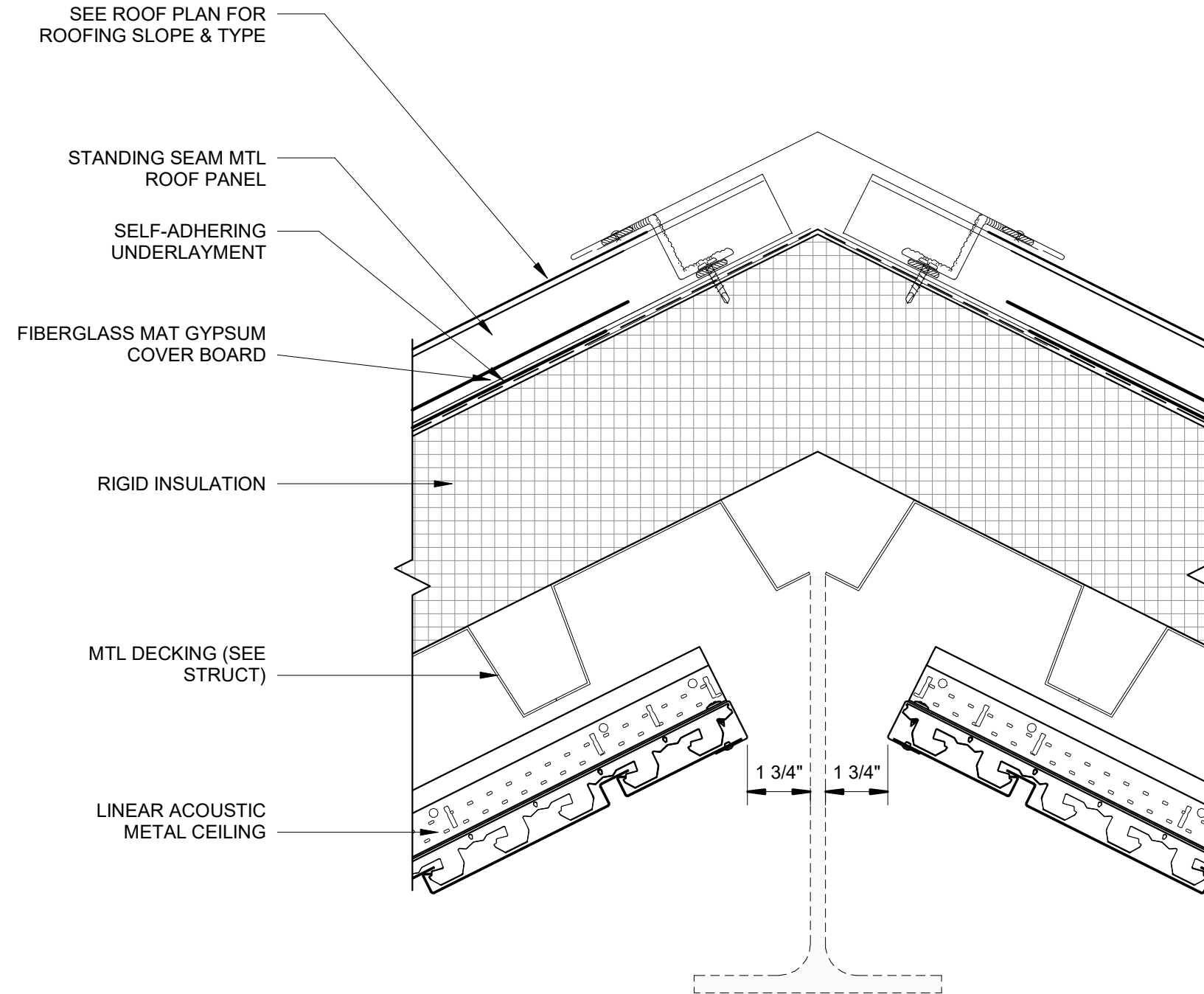
3 METAL ROOF RAKE DETAIL  
A-302 3" = 1'-0"



4 GUTTER DETAIL @ METAL ROOF  
A-302 3" = 1'-0"



5 METAL PANEL @ DECKING  
A-301 3" = 1'-0"



6 METAL ROOF RIDGE  
3" = 1'-0"



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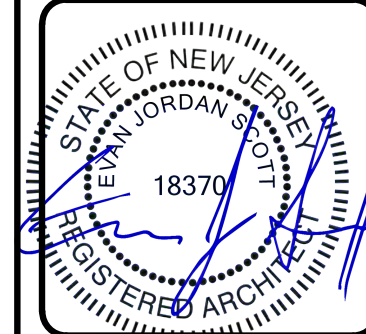
REVISIONS

MARK DATE DESCRIPTION

DESIGNED BY: DB	DATE: 09/24/2021	PROJECT NO.: 60520247
DRAWN BY: JWW/Z	CHECKED BY: MS	APPROVED BY: CH
U.S. ARMY CORPS OF ENGINEERS KANSAS CITY DISTRICT	AECOM 100 RED SCHOOLHOUSE RD CHESTNUT RIDGE, NY	

ROEBLING STEEL SUPERFUND SITE  
VILLAGE OF ROEBLING - FLORENCE TOWNSHIP, NJ  
OPERABLE UNIT 4 - PRESTRETCHER/PRE-TENSIONING SYSTEM BUILDING

ROOF DETAILS



SHEET ID

A-503

VERIFY SCALE BAR IS ONE INCH ON ORIGINAL DRAWING





A

B

C

D

E

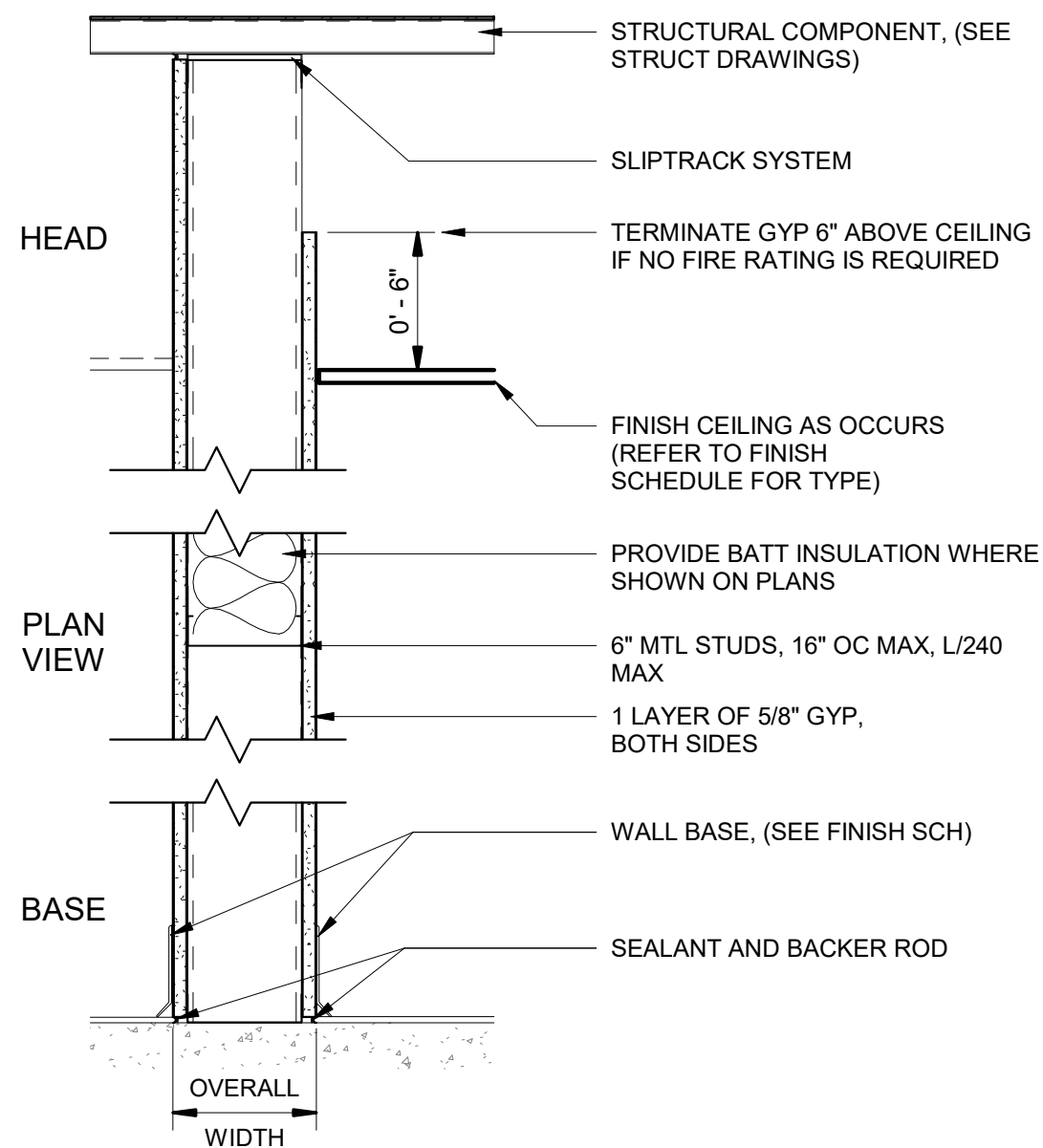
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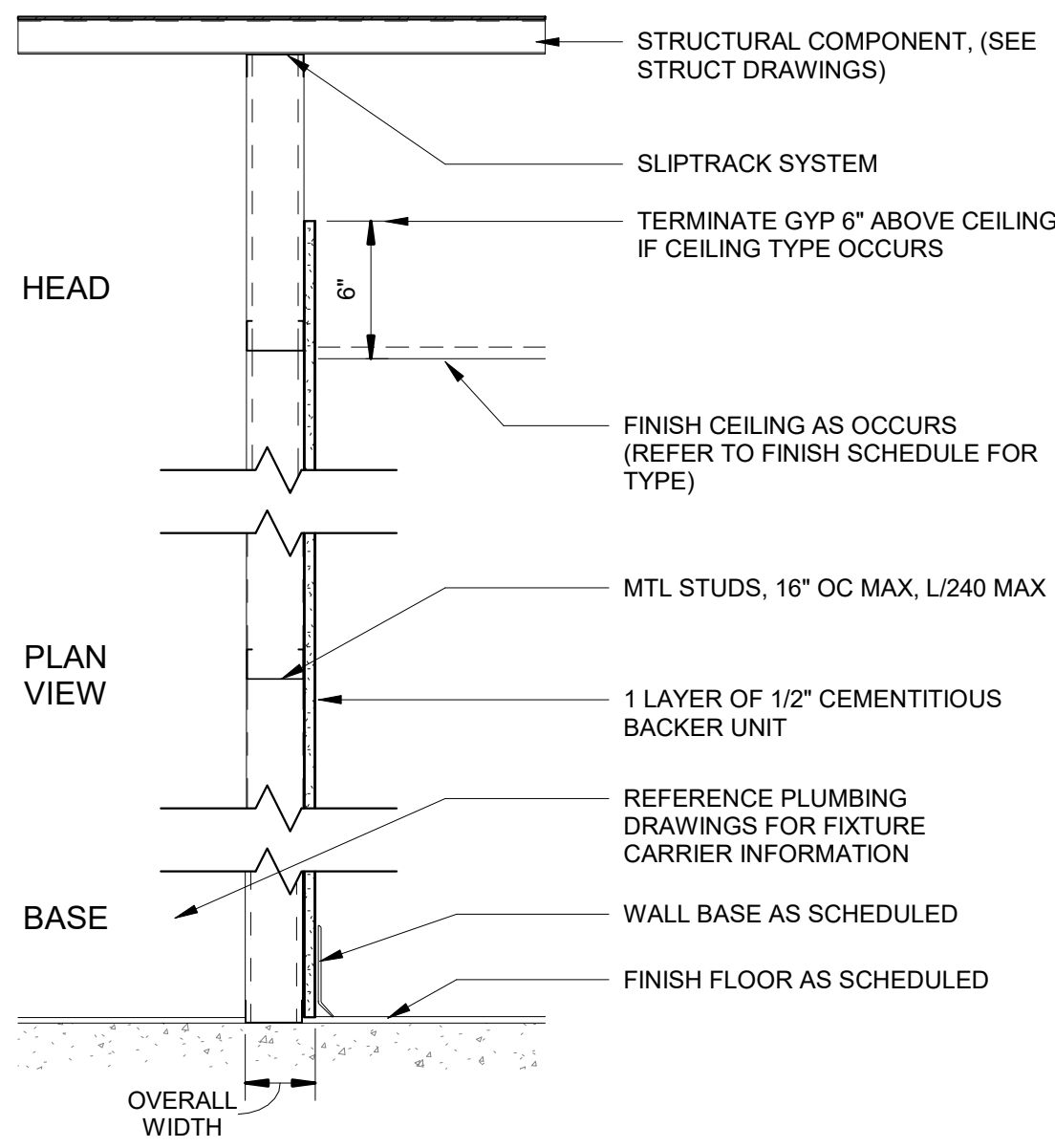
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MATERIAL & FINISH SCHEDULE

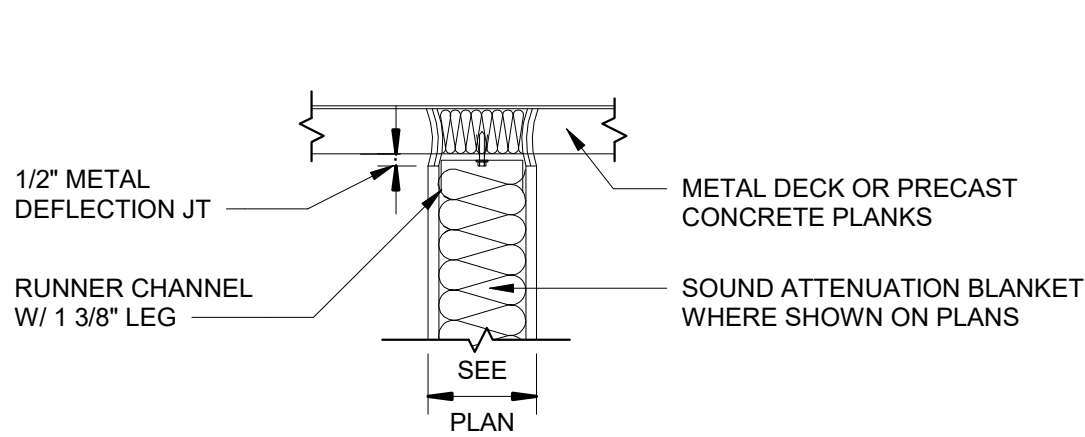
ROOM NUMBER	ROOM NAME	FLOOR FINISH	BASE FINISH	WALL FINISH				CEILING FINISH	COMMENTS
				N	E	S	W		
MAIN LEVEL									
1	VESTIBULE	MAT		-	-	PT	-	GYP	
2	ARTIFACT VIEWING AREA	ET	RUBBER BASE	PT	PT	PT	-	LMC	
3	RESTROOM 1	ET	COVE METAL STRIP	CT	CT	CT	PT	GYP	
4	RESTROOM 2	ET	COVE METAL STRIP	CT	CT	CT	PT	GYP	
5	MECH/ELEC	SC	RUBBER BASE	PT	PT	PT	PT	-	
6	JC/STORAGE	ET	RUBBER BASE	CT	CT	PT	PT	GYP	
DA1	DISPLAY AREA 1	SC	RUBBER BASE	PT	-	PT	PT	LMC	SEE A-508 FOR FLOOR TRANSITION DETAIL
DA2	DISPLAY AREA 2	SC	RUBBER BASE	-	PT	-	-	LMC	SEE A-508 FOR FLOOR TRANSITION DETAIL



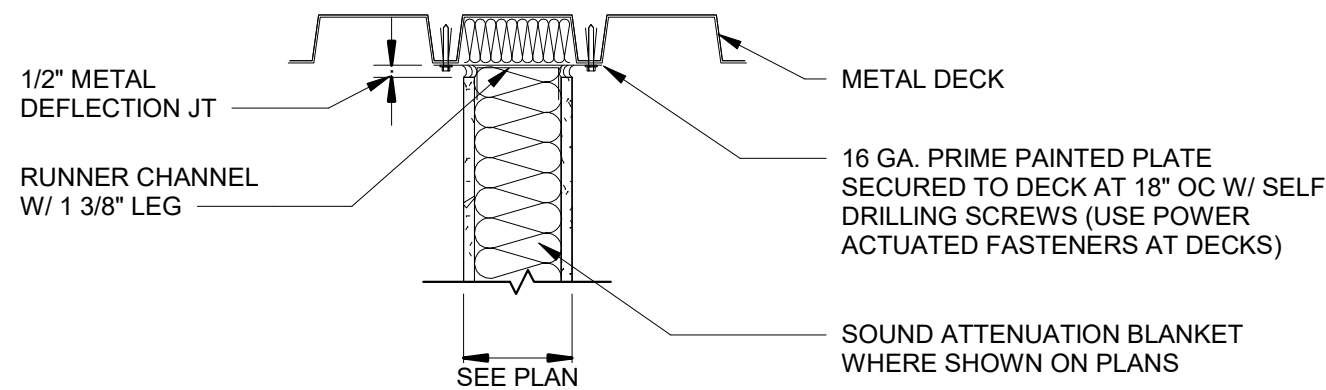
PARTITION TYPE A				
MARK	OVERALL WIDTH	ASSEMBLY	UL LISTING	FIRE RATING
A	7 1/4"	1 LAYER 5/8" GYPSUM WALL BOARD BOTH SIDES	-	NR
		6" METAL STUDS @ 16" OC		



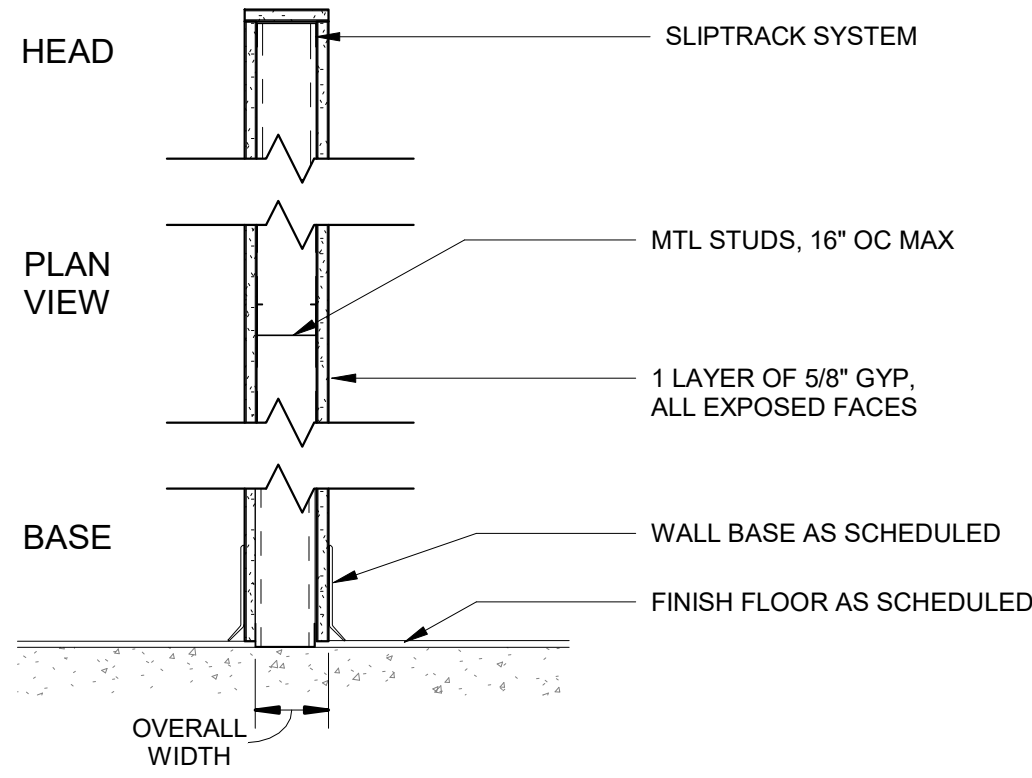
PARTITION TYPE B				
MARK	OVERALL WIDTH	ASSEMBLY	UL LISTING	FIRE RATING
B	4 1/2"	1 LAYER 1/2" CEMENTITIOUS BACKER UNIT	-	NR
		4" METAL STUDS @ 16" OC		



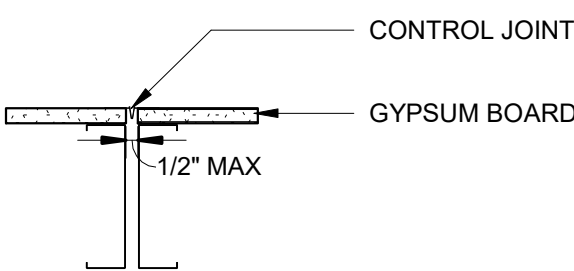
PERPENDICULAR TO DECK  
1 1/2" = 1'-0"



PARTITION PARALLEL TO DECK  
1 1/2" = 1'-0"



PARTITION TYPE C				
MARK	OVERALL WIDTH	ASSEMBLY	UL LISTING	FIRE RATING
C	5 1/4"	1 LAYER 5/8" GYPSUM WALL BOARD BOTH SIDES	-	NR
		4" METAL STUDS @ 16" OC		



CONTROL JOINT  
1 1/2" = 1'-0"

SHEET NOTES

- OPEN TO STRUCTURE
- GYP GYPSUM BOARD PAINTED
- PT PAINTED
- ET EPOXY TERRAZO
- SC SEALED CONCRETE
- MAT WALK-OFF MAT
- LMC LINEAR METAL CEILING
- CT CERAMIC TILE

- FOR PAINT, TILE AND OTHER FINISHES, REFER TO FINISH SCHEDULE.
- COVER ALL EXPOSED GYPSUM WALLBOARD EDGES WITH "J" BEAD AND ALL EXPOSED CORNERS WITH CORNER BEADS.
- USE GYPSUM WALLBOARD AS FOLLOWS UNLESS OTHERWISE NOTED:  
  
INTERIOR NON-RATED PARTITIONS, FURRING, ETC.: 5/8" GYPSUM WALLBOARD.  
  
TOILET ROOMS, AND OTHER MOIST AREAS: CEMENTITIOUS BACKER UNITS.
- SEE SPECIFICATIONS AND DRAWINGS FOR ADDITIONAL COMPONENTS.



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REVISIONS

NO.	DESCRIPTION	DATE	MARK

DATE:

09/24/2021

DESIGNED BY:

DB

DRAWN BY:

JWW/Z

CHECKED BY:

MS

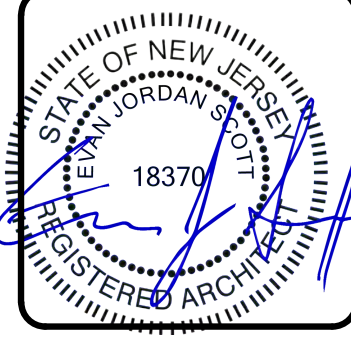
APPROVED BY:

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U.S. ARMY CORPS OF ENGINEERS  
KANSAS CITY DISTRICT  
  
AECOM  
100 RED SCHOOLHOUSE RD  
CHESTNUT RIDGE, NY

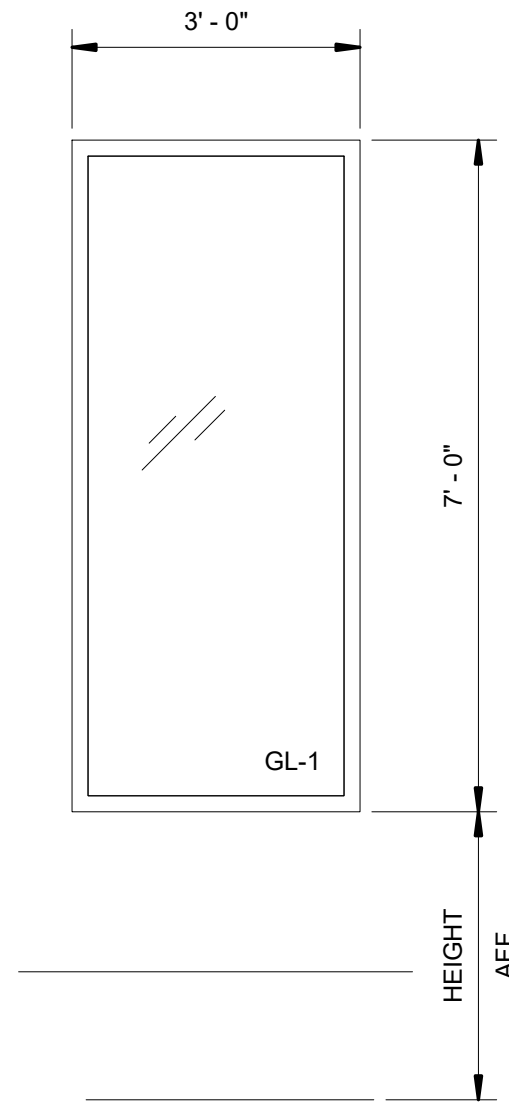
ROEBLING STEEL SUPERFUND SITE  
VILLAGE OF ROEBLING - FLORENCE TOWNSHIP, NJ  
OPERABLE UNIT 4 - PRESTRETCHER/PRE-TENSIONING SYSTEM BUILDING

FINISH SCHEDULE AND  
PARTITION TYPES



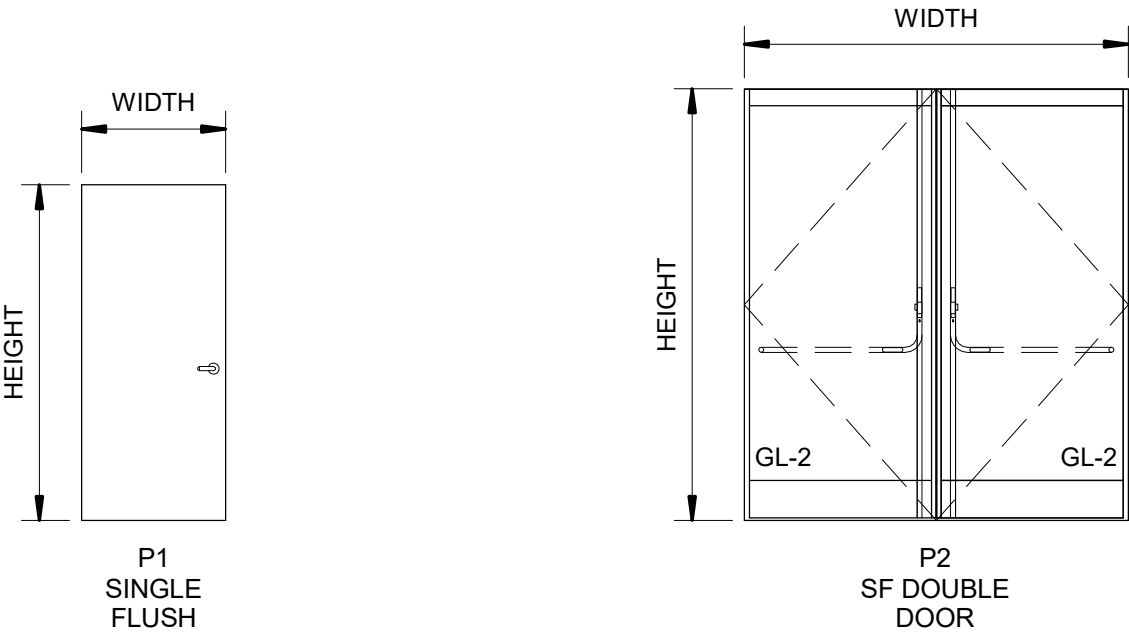
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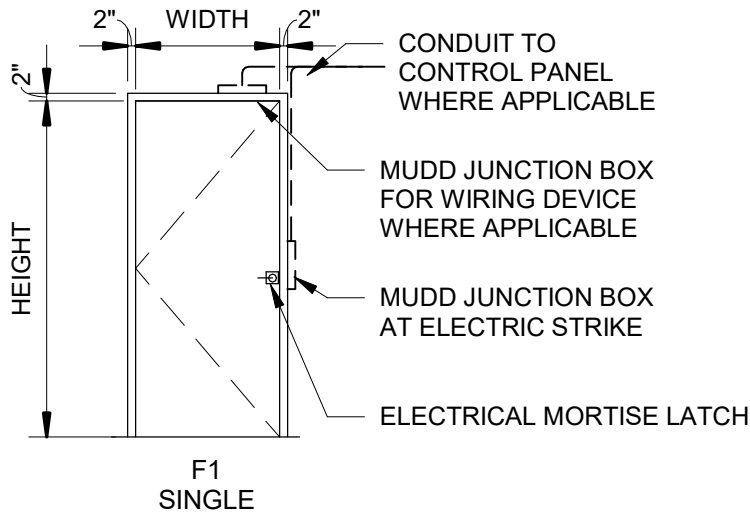


WINDOW 1  
1/2" = 1'-0"

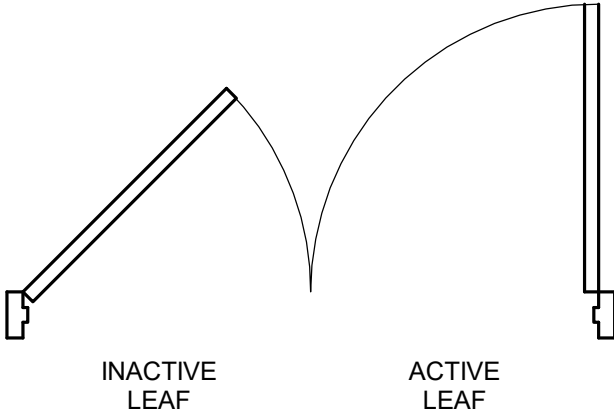
WINDOW SCHEDULE						
MARK	WINDOW TYPE	HEIGHT AFF	HEAD DETAIL	JAMB DETAIL	SILL DETAIL	COMMENTS
MAIN LEVEL						
W1	WINDOW 1	2' - 0"	2 / A502	3 / A502	7 / A502	



DOOR TYPES  
1/4" = 1'-0"



FRAME TYPES  
1/4" = 1'-0"



DOOR LEAF TYPE  
1/2" = 1'-0"

DOOR SCHEDULE															
MARK	ROOM	DOOR					FRAME			FIRE RATING	DETAIL			HARDW ARE SET	COMMENTS
		DOOR TYPE	WIDTH	HEIGHT	DOOR MATERIAL	DOOR FINISH	FRAME TYPE	FRAME MATERIAL	FRAME FINISH		HEAD DETAIL	JAMB DETAIL	SILL DETAIL		
MAIN LEVEL															
1A	VESTIBULE	P2	6' - 0"	9' - 0"	FG	-	-	AL	-	-	5 / A502	9 / A502	8 / A502	*	*SEE SPEC 08 41 26.01
1B	VESTIBULE	P2	6' - 0"	9' - 0"	FG	-	-	AL	-	-	15 / A502	9 / A502	8 / A502	*	*SEE SPEC 08 41 26.01
1C	VESTIBULE	P2	6' - 0"	9' - 0"	FG	-	-	AL	-	-	15 / A502	9 / A502	8 / A502	*	*SEE SPEC 08 41 26.01
2	ARTIFACT VIEWING AREA	P1	3' - 0"	7' - 0"	MTL	PT	F1	MTL	PT	-	14 / A502	14 / A502	10 / A502	HW-2	
3	RESTROOM 1	P1	3' - 0"	7' - 0"	MTL	PT	F1	MTL	PT	-	1 / A502	4 / A502	6 / A502	HW-3	
4	RESTROOM 2	P1	3' - 0"	7' - 0"	MTL	PT	F1	MTL	PT	-	1 / A502	4 / A502	6 / A502	HW-3	
5	MECH/ELEC	P1	3' - 0"	7' - 0"	MTL	PT	F1	MTL	PT	-	14 / A502	14 / A502	10 / A502	HW-1	
6	JC/STORAGE	P1	3' - 0"	7' - 0"	MTL	PT	F1	MTL	PT	-	1 / A502	4 / A502	6 / A502	HW-4	

SHEET NOTES

- DOOR AND FRAME ASSEMBLIES SHALL COMPLY WITH REQUIREMENTS INDICATED IN THE DOOR AND FRAME SCHEDULE, GENERAL NOTES, AND DETAILS REFERENCED FROM DOOR AND FRAME DIAGRAMS, UNO.
- THE "MARK" REFERS TO THE DOOR TAG FOR EACH DOOR OPENING AS INDICATED ON THE FLOOR PLANS.
- THE "ROOM", WHERE INDICATED, REFERS TO THE LOCATION OF THE DOOR INDICATED ON THE FLOOR PLANS.
- THE "DOOR TYPE" REFERS TO THE DOOR PANEL ASSEMBLY INDICATED BY THE "DOOR TYPES" DIAGRAM.
- THE "DOOR TYPE", "DOOR FINISH" AND "DOOR MATERIAL" INDICATE REQUIREMENTS FOR THE DOOR PANEL ASSEMBLY(IES).
- THE "DOOR PANEL WIDTH" INDICATES THE NOMINAL WIDTH OF EACH DOOR PANEL IN THE ASSEMBLY DOOR THICKNESSES SHALL BE 1-3/4", UNO.
- THE DOOR "HEIGHT" INDICATES THE NOMINAL HEIGHT OF THE DOOR PANEL(S) IN THE ASSEMBLY.
- THE "FRAME TYPES" REFERS TO THE FRAME ASSEMBLY INDICATED BY THE "FRAME TYPES" DIAGRAM. THE SCHEDULE REFERENCES HEAD - JAMB - SILL DETAILS RELATED TO THE ASSEMBLY, UNO.
- THE "FRAME TYPES", AND "FRAME FINISH" INDICATE REQUIREMENTS FOR TO THE FRAME ASSEMBLY, AS SHOWN IN THE CORRESPONDING LEGENDS. REFER TO THE DOOR TYPE DIAGRAM FOR LOCATION OF GLASS TYPES.
- THE "GLAZING TYPE" INDICATES THE GLAZING PANEL ASSEMBLY.
- THE "HARDWARE SET NO" INDICATES THE HARDWARE GROUP APPLICABLE TO THE DOOR-FRAME ASSEMBLY.
- THE "ACCESS CONTROLS" (WHEN MARKED) INDICATES THE DOOR-FRAME ASSEMBLY(IES) THAT REQUIRE ACCESS CONTROLS.

DOOR TYPE LEGEND

- P1 SINGLE FLUSH PANEL DOOR
- P2 SF GLAZED DOOR (SEE ELEVATIONS FOR FRAME TYPE)

DOOR MATERIAL LEGEND

- AL ALUMINUM
- MTL METAL

FIRE RATING LEGEND

- NO RATING
- 60 60 MIN RATED DOOR AND FRAME ASSEMBLY

FINISH TYPE LEGEND

- NOT APPLICABLE
- PT PAINTED FINISH

SF PANEL TYPE LEGEND

- GL-1 INSULATED LOW-E GLAZING
- GL-2 TEMPERED SAFETY GLAZING, CLEAR
- GL-3 INSULATED LOW-E, TEMPERED SAFETY GLAZING



US Army Corps  
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REVISIONS

MARK

DATE

DESCRIPTION

DESIGNED BY:  
DB

DRAWN BY:  
JWW/Z

CHECKED BY:  
MS

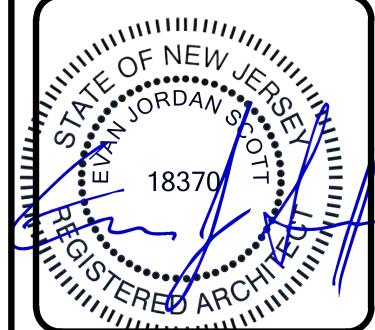
APPROVED BY:  
CH

U.S. ARMY CORPS OF ENGINEERS  
KANSAS CITY DISTRICT

AECOM  
100 RED SCHOOLHOUSE RD  
CHESTNUT RIDGE, NY

ROEBLING STEEL SUPERFUND SITE  
VILLAGE OF ROEBLING - FLORENCE TOWNSHIP, NJ  
OPERABLE UNIT 4 - PRESTRETCHER/PRE-TENSIONING SYSTEM BUILDING

DOOR AND WINDOW SCHEDULES



SHEET ID

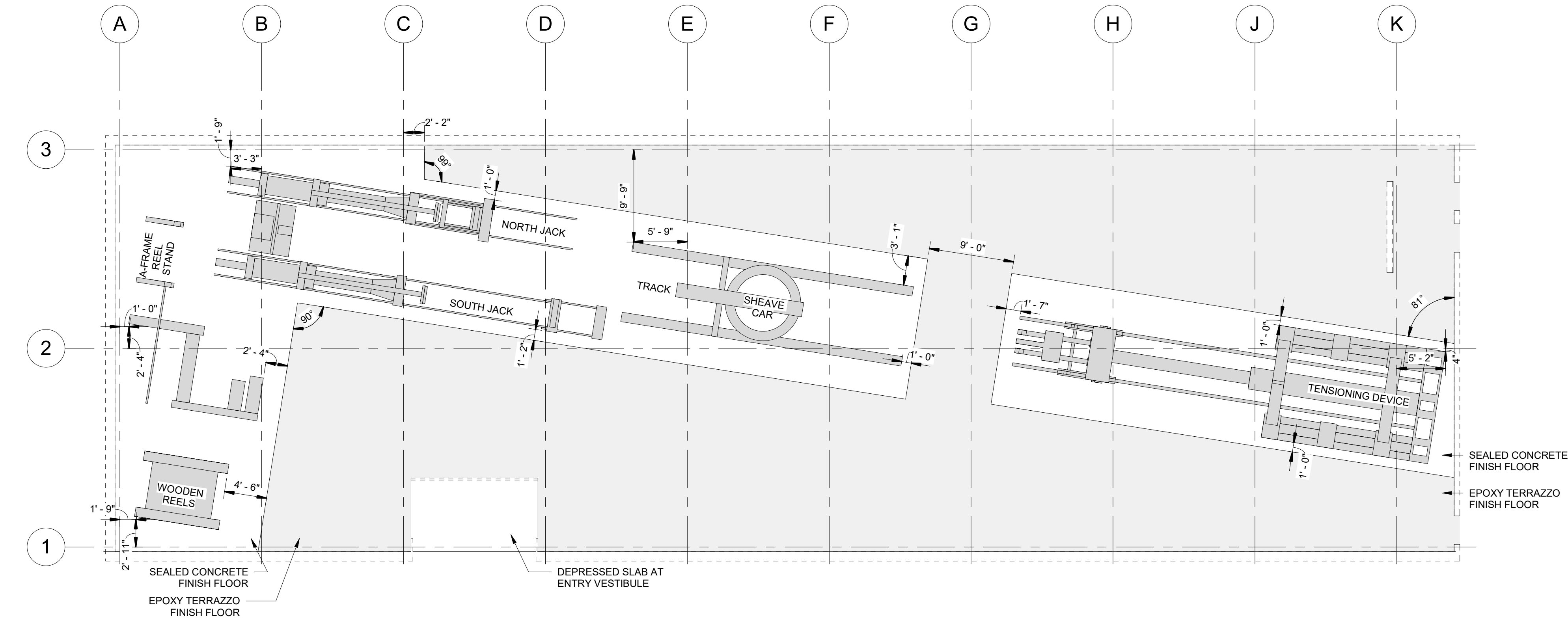
A-603

VERIFY SCALE BAR IS ONE INCH ON ORIGINAL DRAWING





1 ARTIFACT DIMENSIONS  
A-201 1/8" = 1'-0"



2 ARTIFACT PLACEMENT  
A-201 1/8" = 1'-0"

SHEET NOTES

1. TREATMENT MUST BE CONSISTENT WITH THE SECRETARY OF THE INTERIOR'S STANDARDS FOR THE TREATMENT OF HISTORIC PROPERTIES (2017).
2. LIFTING PLANS MUST BE PREPARED AND SUBMITTED TO THE USACE PRIOR TO BEGINNING WORK.
3. THE WORK AREA MUST BE CLEARLY DEFINED WITH BARRIERS AND ENCLOSURES TO PROTECT THE PUBLIC FROM ANY OF THE COMPONENTS OF THE RESTORATION PROCESS. LINERS AND FILTRATION SYSTEMS MUST BE USED TO COLLECT ANY MEDIUM THAT BECOMES AIRBORNE DURING THE RESTORATION PROCESS (E.G., AIR ABRASION MEDIA, RUST, ACIDS AND PAINT) FOR REMOVAL FROM THE SITE.
4. THE BASEPLATES MUST BE REPLACED. THE ARTIFACT MUST BE LIFTED USING AN APPROPRIATELY SIZED CRANE. THE BASEPLATES, INCLUDING THE GROUT AND SHIMMING UNDER AND AROUND THE BASEPLATE, MUST BE REMOVED UNDER THE SUPERVISION OF A STRUCTURAL ENGINEER. THE CURRENT ANCHOR BOLTS MUST BE USED FOR THE REPLACEMENT SUPPORTS AND BASEPLATES. THE SUPPORTS MUST BE REUSED OR REPLACED IN KIND. THE BASEPLATES MUST BE REPLACED WITH AT LEAST A 1 INCH THICK HOT DIP GALVANIZED ASTM A36 BASEPLATE AND PROVIDE A MINIMUM OF A TWO INCH EDGE DISTANCE FROM THE CENTER OF THE HOLE. TEFLON PADS MUST BE PLACED BETWEEN THE ARTIFACT AND THE SUPPORTS.
5. THE ARTIFACT MUST BE REPOSITIONED ON THE MODERN SUPPORTS SUCH THAT IT IS SECURE AND STABLE. THE ARTIFACT MUST BE HELD IN THE CENTER WITH A SLING OR APPROPRIATE SUPPORT SYSTEM TO KEEP IT FROM MOVING OFF THE CENTER. THE ORIENTATION MUST BE MAINTAINED AND THE ARTIFACT MUST BE PLACED BACK IN THE SAME ORIENTATION. NO ADJUSTMENTS MUST BE MADE TO THE POSITIONING OF THE SUPPORTS.
6. THE ENTIRE SURFACE MUST BE CLEANED WITH AN AIR ABRASION SYSTEM.
7. ALL OF THE SURFACE RUST AND SURVIVING PAINT MUST BE REMOVED BY MECHANICAL CLEANING USING AIR ABRASION WITH WALNUT SHELL MEDIA. THE CONTRACTOR MUST FOLLOW THE TECHNIQUES SET FORTH IN THE GENERAL REQUIREMENTS TO DETERMINE THE CORRECT PSI.
8. THE SURFACES MUST BE PRIMED WITH PHOSPHORIC ACID AND TANNIC ACID. THE CONTRACTOR MUST FOLLOW THE TECHNIQUES SET FORTH IN THE GENERAL REQUIREMENTS TO DETERMINE THE CORRECT CONCENTRATION OF EACH ACID.
9. AT LEAST ONE COAT OF PHOSPHORIC ACID AND THREE COATS OF TANNIC ACID MUST BE APPLIED. THE CONTRACTOR MUST WAIT UNTIL THE TREATED AREAS ARE FULLY DRY AND MUST THOROUGHLY INSPECT THE AREAS BETWEEN APPLICATIONS. ADDITIONAL APPLICATIONS OF TANNIC ACID MAY BE NEEDED IF THE ARTIFACT IS NOT FULLY BLACK.



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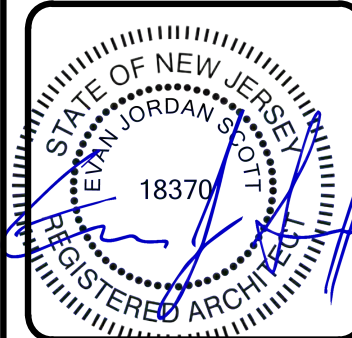
REVISIONS

MARK	DATE	DESCRIPTION

DESIGNED BY: DB	DATE: 09/24/2021	PROJECT NO.: 60620247
DRAWN BY: JWW/Z	CHECKED BY: MS	APPROVED BY: CH
U.S. ARMY CORPS OF ENGINEERS KANSAS CITY DISTRICT	AECOM 100 RED SCHOOLHOUSE RD CHESTNUT RIDGE, NY	

ROEBLING STEEL SUPERFUND SITE  
VILLAGE OF ROEBLING - FLORENCE TOWNSHIP, NJ  
OPERABLE UNIT 4 - PRESTRETCHER/TENSIONING SYSTEM BUILDING

ARTIFACTS
























SHEET ID

A-700





SYMBOL	DESCRIPTION
	AIR FLOW MEASURING DEVICE
	AIR SWITCH
	CURRENT SENSOR
	DIFF. PRESSURE TRANSMITTER
	EQUIPMENT ACTUATOR
	END SWITCH
	FLOW METER
	HAND-OFF-AUTO SWITCH
	METER
	PH TRANSMITTER
	PRESSURE SWITCH
	PRESSURE TRANSMITTER
	DUCT SMOKE DETECTOR
	STARTER
	TEMPERATURE SENSOR
	VARIABLE FREQUENCY DRIVE
	WATER FLOW SWITCH

	EXISTING MECHANICAL EQUIPMENT
	DEMOLISHED MECHANICAL EQUIPMENT
	GENERIC FAN
	ACCESS DOOR

ABBREVIATION	DESCRIPTION
(D)	EXISTING TO DEMOLISHED
(E)	EXISTING TO REMAIN
(F)	FUTURE
AC	AIR CONDITIONER
ACCU	AIR COOLED CONDENSING UNIT
ACR	AIR CURTAIN
AFF	ABOVE FINISHED FLOOR
AMB	AMBIENT
APD	AIR PRESSURE DROP
BAS	BUILDING AUTOMATION SYSTEM
BFP	BACKFLOW PREVENTOR
BHP	BRAKE HORSEPOWER
BLDG	BUILDING
BOB	BOTTOM OF BEAM
BOD	BOTTOM OF DUCT
BOP	BOTTOM OF PIPE
BTUH	BRITISH THERMAL UNITS PER HOUR
CFM	CUBIC FEET PER MINUTE
CO	CLEAN OUT
COP	COEFFICIENT OF PERFORMANCE
CV	CONSTANT VOLUME
DB	DRY BULB
DIA	DIAMETER
DN	DOWN
EAT	ENTERING AIR TEMPERATURE
EER	ENERGY EFFICIENCY RATIO
EF	EXHAUST FAN
EFF	EFFICIENCY RATIO
EG	ETHYLENE GLYCOL
ESP	EXTERNAL STATIC PRESSURE
EWT	ENTERING WATER TEMPERATURE
FLA	FULL LOAD AMPS
FPI	FINS PER INCH
FPM	FEET PER MINUTE
FPS	FEET PER SECOND
FT	FEET
GAL	GALLONS
GPM	GALLONS PER MINUTE
HD	HEAD
HP	HORSEPOWER
HVLS	HIGH VOLUME LOW SPEED CEILING FANS
ID	INNER DIAMETER
IPLV	INTEGRATED PART LOAD VALUE
KW	KILOWATTS
LAT	LEAVING AIR TEMPERATURE
LWT	LEAVING WATER TEMPERATURE
MBH	THOUSAND BTUH
MCA	MINIMUM CIRCUIT AMPACITY
MFR	MANUFACTURER
MOCP	MAXIMUM OVERCURRENT PROTECTION
N/A	NOT APPLICABLE
NC	NORMALLY CLOSED
NO	NORMALLY OPEN
NPSH	NET POSITIVE SUCTION HEAD
NTS	NOT TO SCALE
OD	OUTSIDE DIAMETER
PD	PRESSURE DROP
PG	PROPYLENE GLYCOL
PPH	POUNDS PER HOUR
PPM	PARTS PER MILLION
PRV	PRESSURE REDUCING VALVE
PSI	POUNDS PER SQUARE INCH
REFRIG	REFRIGERANT
RH	RELATIVE HUMIDITY
RPM	REVOLUTIONS PER MINUTE
RTU	ROOFTOP UNIT
SP	STATIC PRESSURE
TSP	TOTAL STATIC PRESSURE
TYP	TYPICAL
UH	UNIT HEATER
VAV	VARIABLE AIR VOLUME
VFD	VARIABLE FREQUENCY DRIVE
W	WATTS
WB	WET BULB
WG	WATER GAUGE
WMS	WIRED MESH SCREEN
WPD	WATER PRESSURE DROP



DATE	DESCRIPTION
------	-------------

1000

ROEBLING STEEL SUPERFUND SITE  
VILLAGE OF ROEBLING - FLORENCE TOWNSHIP, NJ

## MECHANICAL SYMBOLS AND ABBREVIATIONS



**M-002**

9/24/2021 3:44:13 PM

1

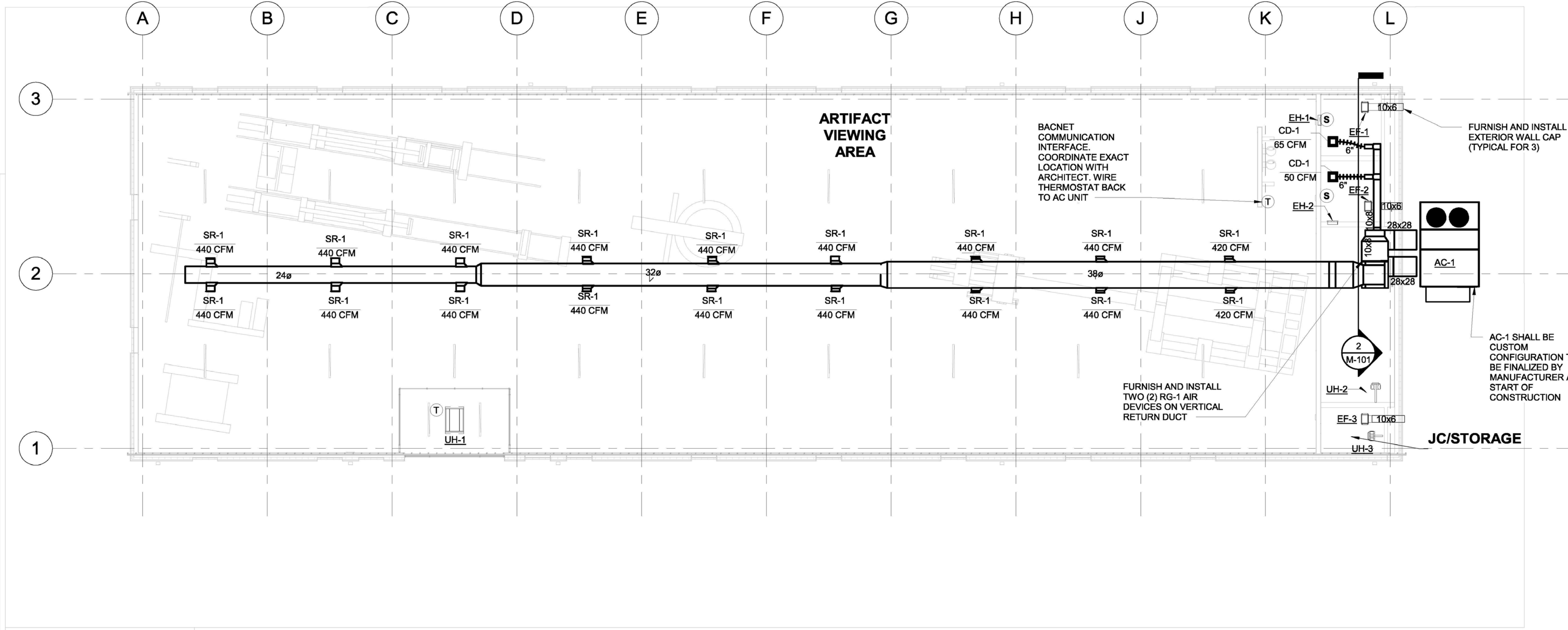
2

3

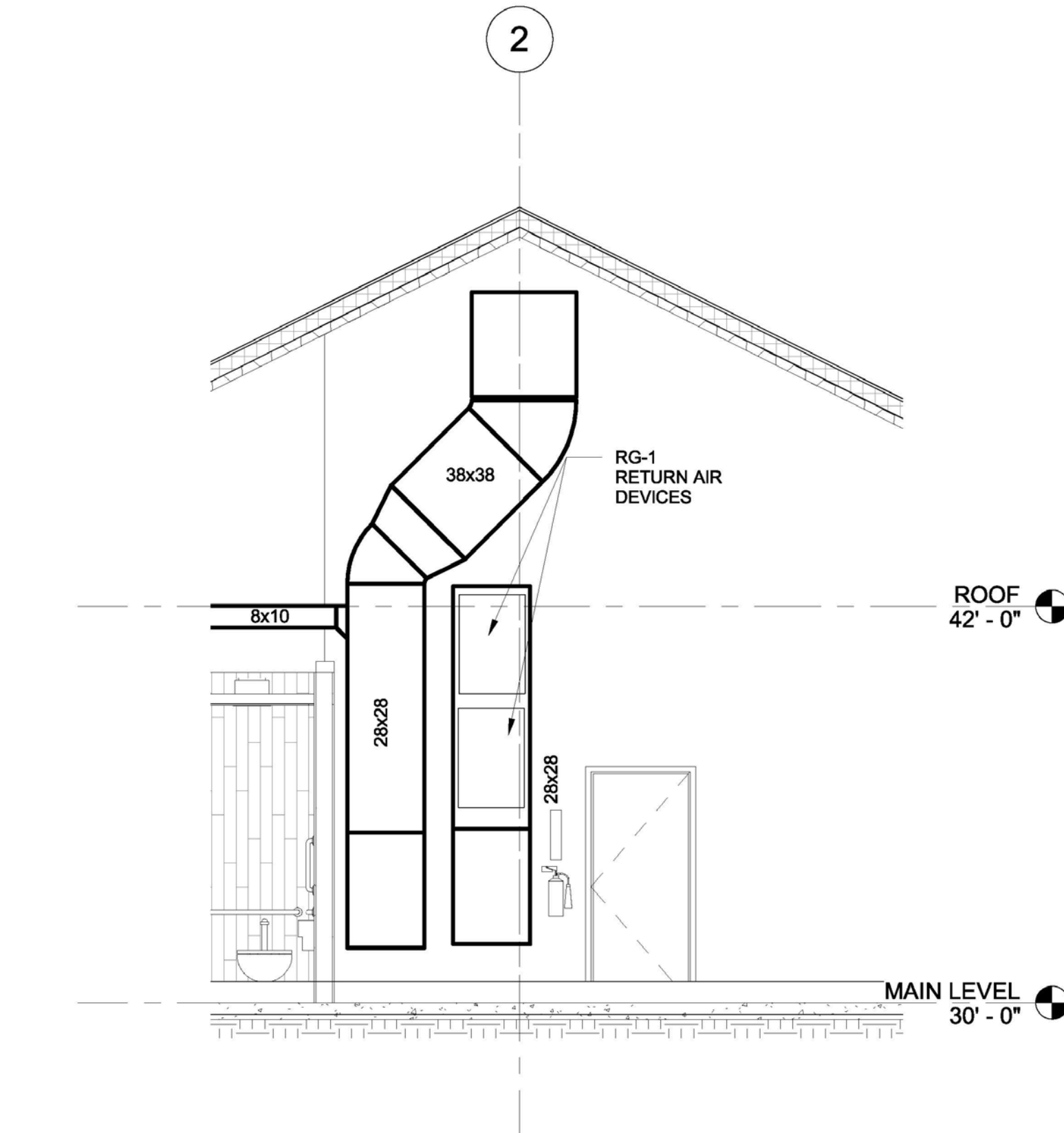
4

5

6



PRESTRECHER BUILDING - MECHANICAL  
1/8" = 1'-0"



2 DUCTWORK ELEVATION  
1/4" = 1'-0"



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REVISIONS

MARK	DATE	DESCRIPTION

DESIGNED BY: DT	DATE: 09/24/2021
DRAWN BY: DT	PROJECT NO.: 60620247
CHECKED BY: FA	
APPROVED BY: FA	
U.S. ARMY CORPS OF ENGINEERS KANSAS CITY DISTRICT	AECOM 100 RED SCHOOLHOUSE RD CHESTNUT RIDGE, NY

ROEBLING STEEL SUPERFUND SITE  
VILLAGE OF ROEBLING - FLORENCE TOWNSHIP, NJ  
OPERABLE UNIT 4 - PRESTRECHER/PRE-TENSIONING SYSTEM BUILDING  
**MECHANICAL FLOOR PLAN -  
OVERALL**



SHEET ID  
**M-101**

VERIFY SCALE BAR IS ONE INCH ON ORIGINAL DRAWING

A

B

C

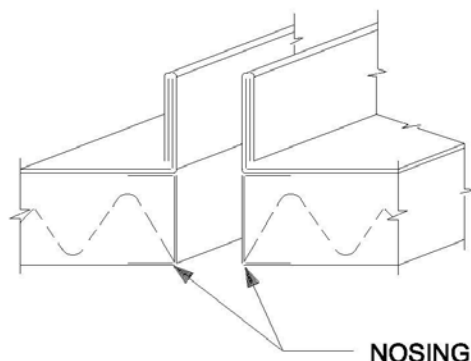
D

E

F

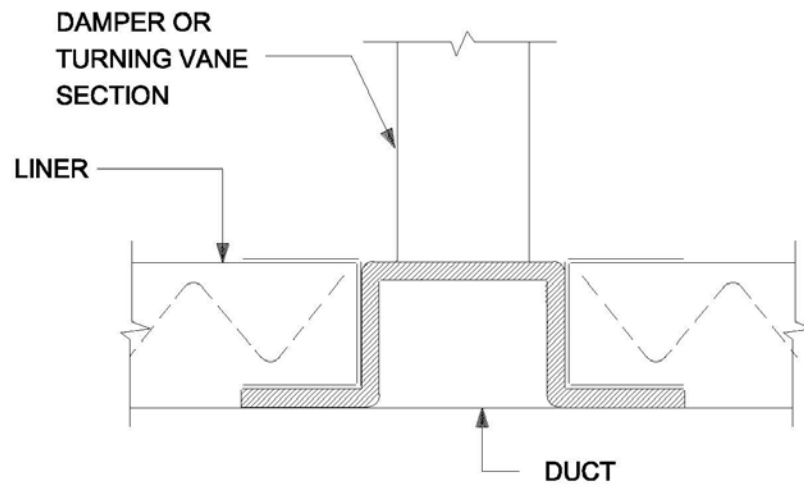
G

H



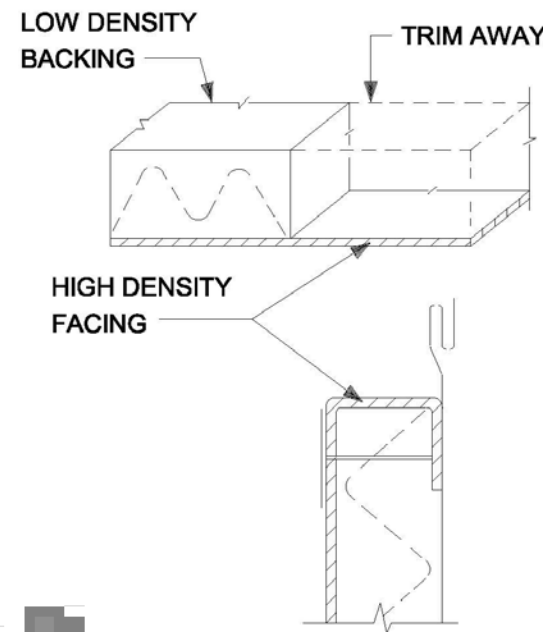
NOTE:  
ENTERING, BUTTING AND TRAILING  
EDGES OF LINER AT TRANSVERSE  
JOINTS TO BE COVERED BY NOSING.

TRANSVERSE JOINT DETAIL



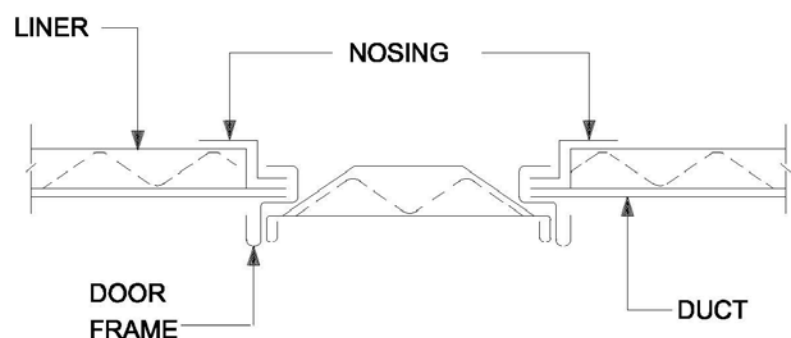
NOTE:  
THAT SECTION INSTALLED WITH NOSING  
TO CONCEAL LINER EDGES.

DETAIL AT DAMPERS AND  
TURNING VANES



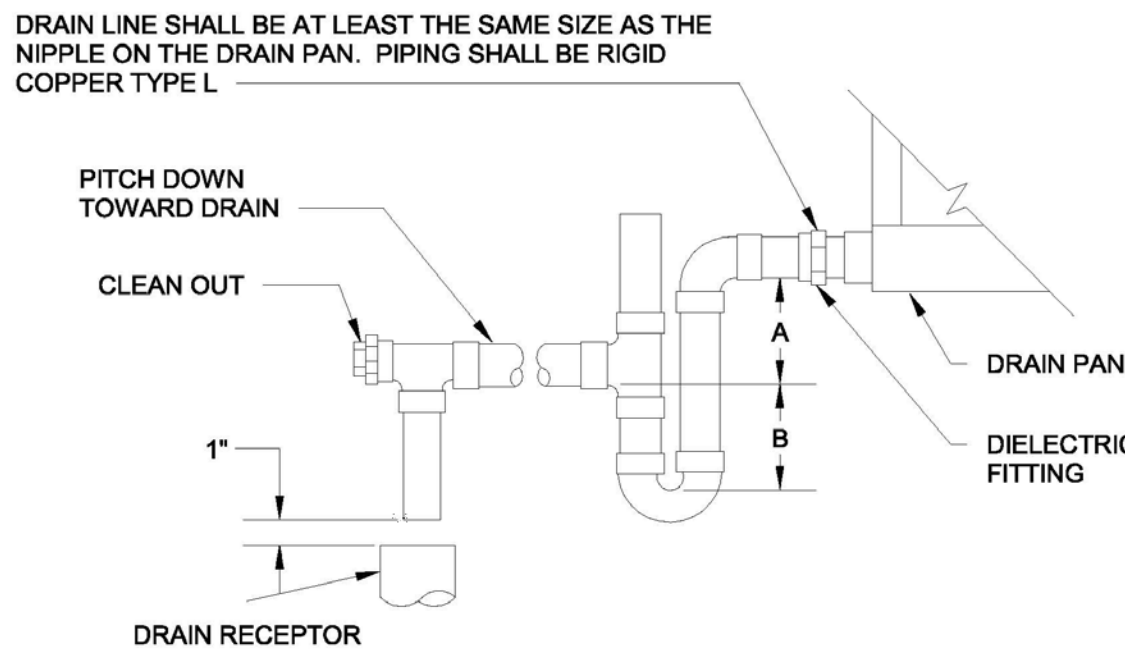
NOTE:  
GLUE OVER HIGH DENSITY FACING  
ON ALL LONGITUDINAL JOINTS &  
SECURE WITH MECHANICAL FASTENER.

LONGITUDINAL JOINT DETAIL



ACCESS DOOR NOSING DETAIL

1 | ACOUSTICAL LINING NOSING DETAIL  
M-501 | NTS



UNIT TYPE	A	B
DRAW THRU	2" PLUS X	X
BLOW THRU	1" MINIMUM	2X

WHERE X = STATIC PRESSURE IN PAN

NOTES:  
1. DIELECTRIC FITTING TO BE  
USED WHEN TWO  
DISSIMILAR METALS ARE TO  
BE CONNECTED.

4 | CONDENSATE DRAIN PIPING  
M-501 | 1/8" = 1'-0"

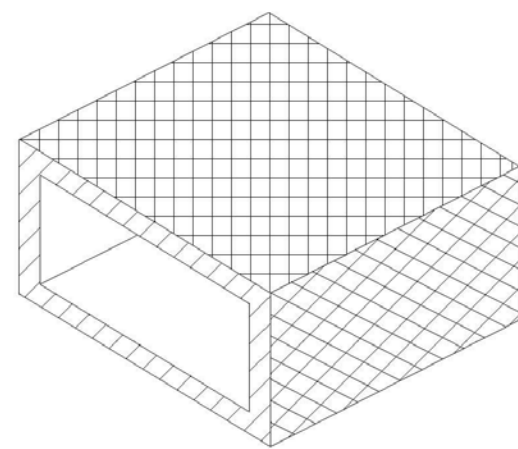


FIG. A

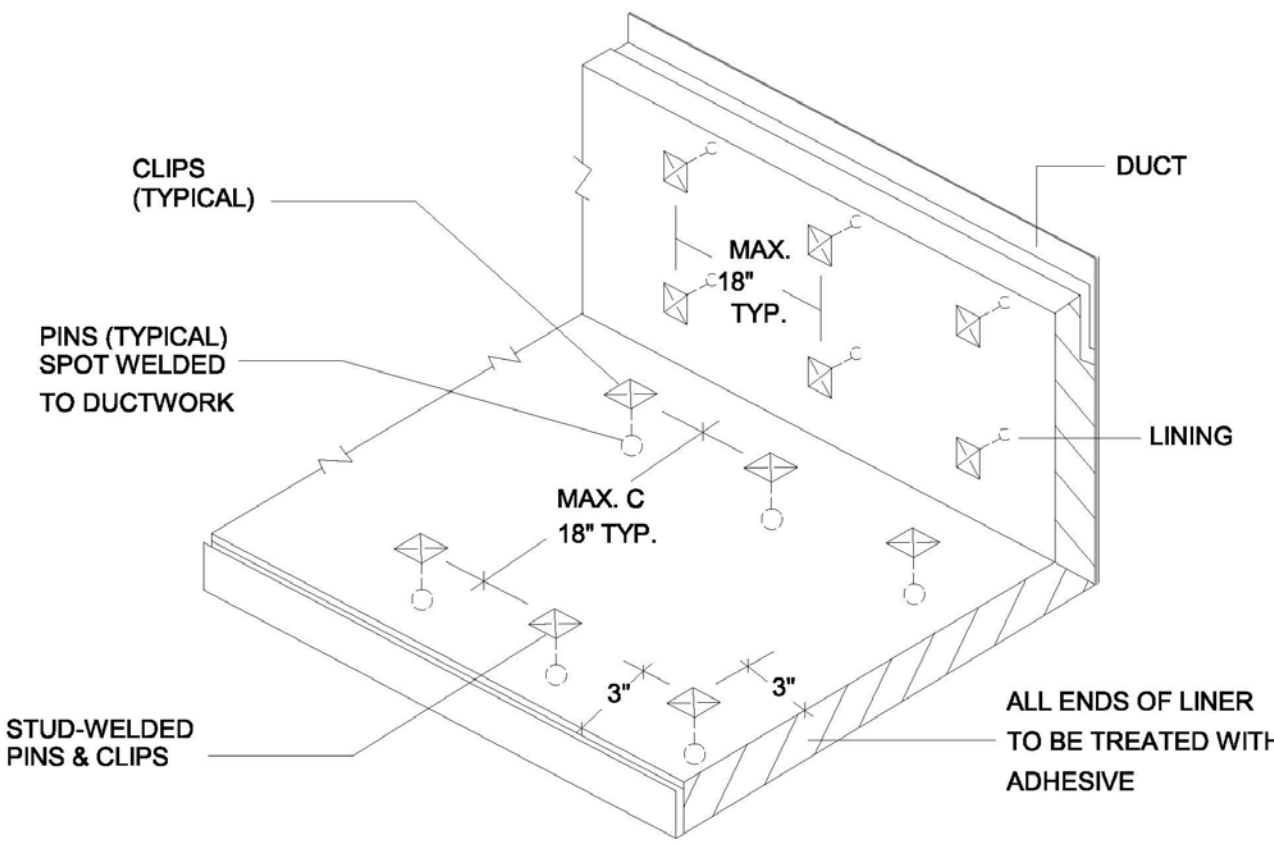
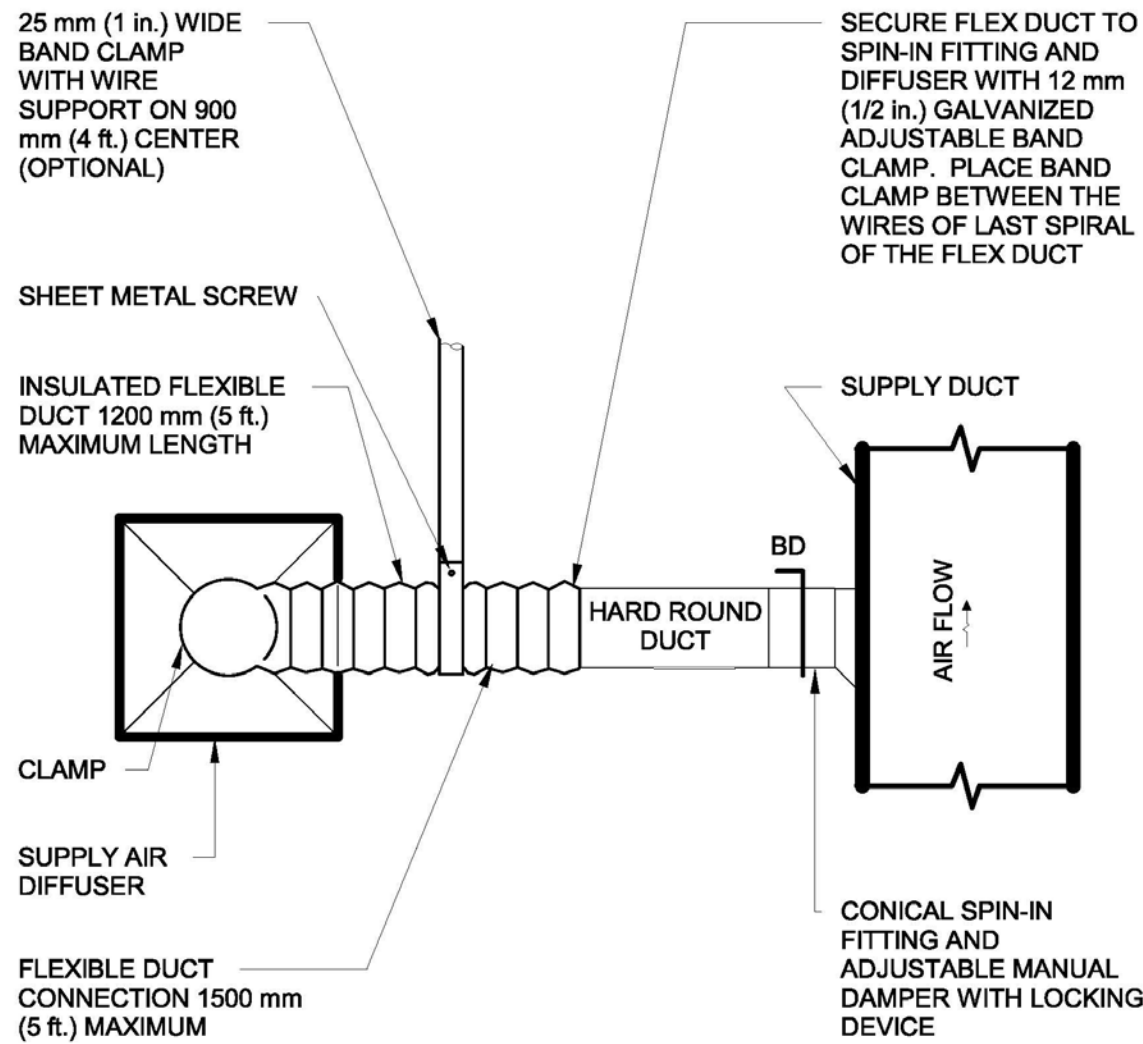


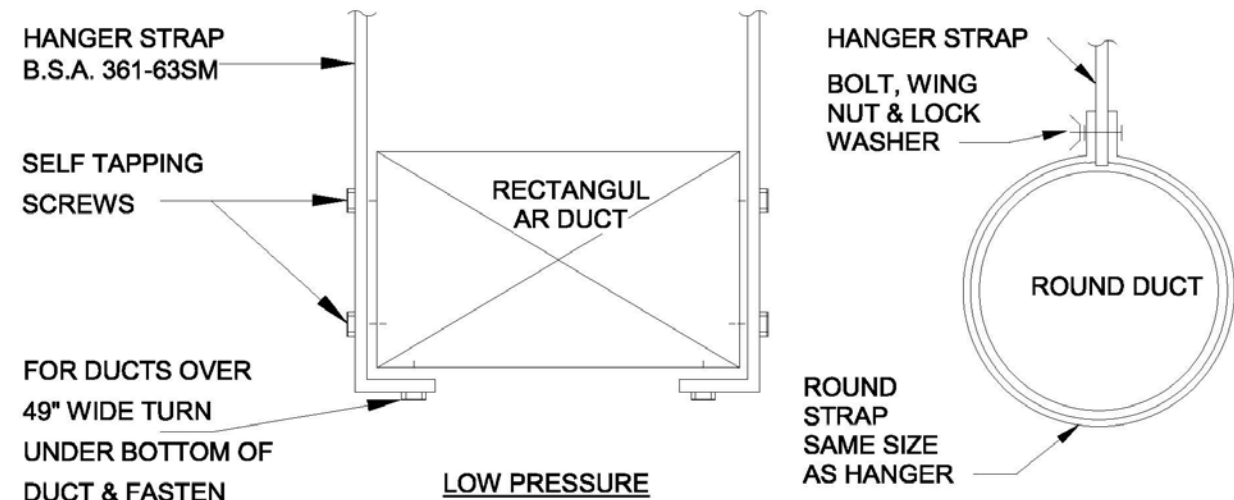
FIG. B

2 | ACOUSTICAL DUCT LINING DETAIL  
M-501 | NTS



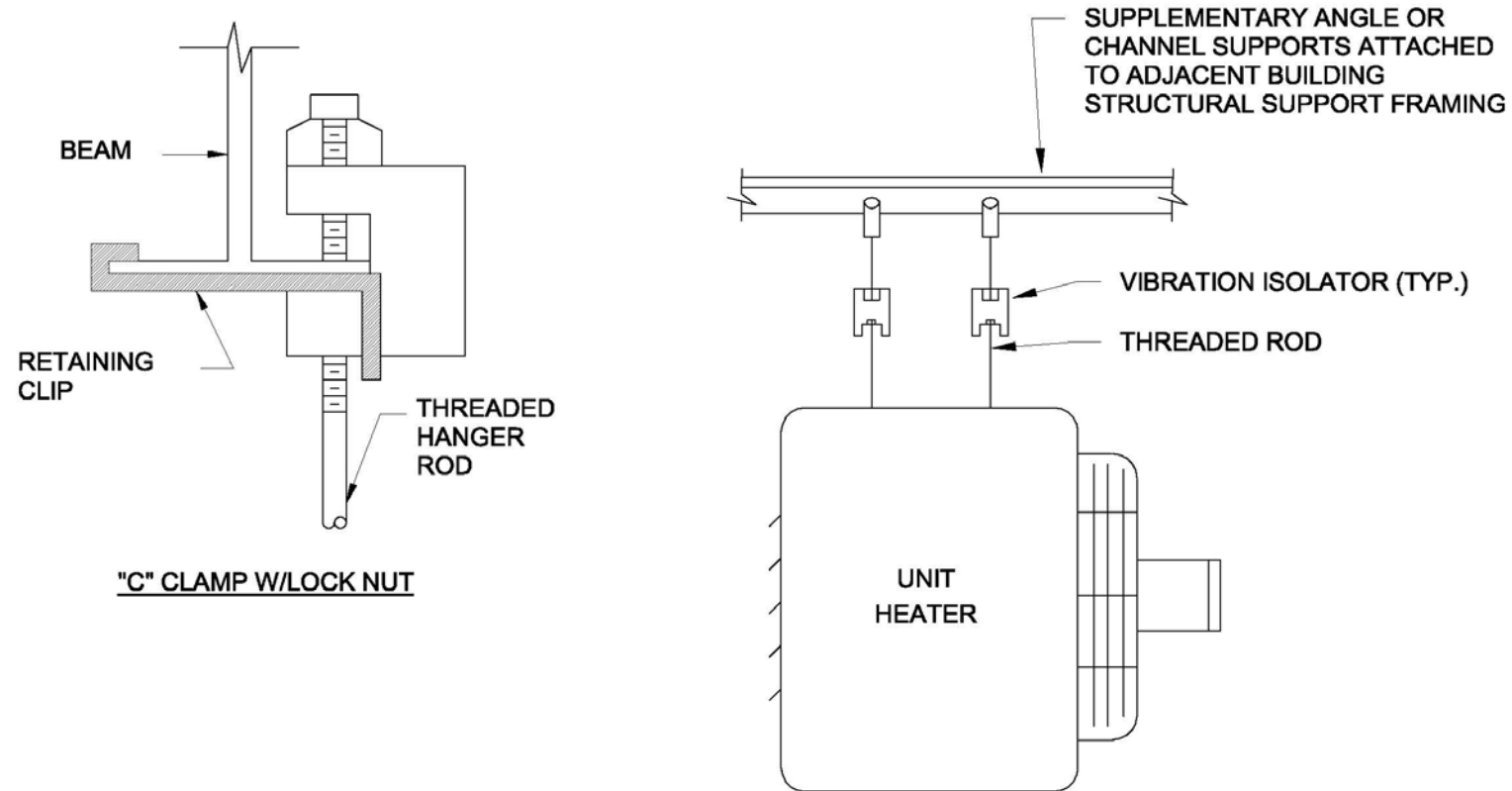
NOTES:  
1. MAXIMUM SAG 42 mm PER METER (1/2 in. PER FOOT) BETWEEN SUPPORT BRACING.

5 | DIFFUSER CONNECTION DETAIL  
M-501 | NTS



DUCT HANGER SCHEDULE		
DUCT CROSS SECTIONAL AREA	STRAP HANGER SIZE	MAX. SPACING
UNDER 2 SQ. FT.	1" X 1/16"	6'-0" O.C.
2 TO 4 SQ. FT.	1" X 1/8"	8'-0" O.C.
4 TO 8 SQ. FT.	1" X 1/8"	6'-0" O.C.
OVER 8 SQ. FT.	1" X 1/8"	4'-0" O.C.

3 | DUCT HANGING DETAIL  
M-501 | NTS



6 | TYPICAL UNIT HEATER & HANGING DETAIL  
M-501 | 1/8" = 1'-0"



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REVISIONS

MARK	DATE	DESCRIPTION

DESIGNED BY: DT	DATE: 09/24/2021	PROJECT NO.: 60620247	APPROVED BY: FA
DRAWN BY: DT			
CHECKED BY: FA			
U.S. ARMY CORPS OF ENGINEERS KANSAS CITY DISTRICT	AECOM 100 RED SCHOOLHOUSE RD CHESTNUT RIDGE, NY		

ROEBLING STEEL SUPERFUND SITE  
VILLAGE OF ROEBLING - FLORENCE TOWNSHIP, NJ  
OPERABLE UNIT 4 - PRESTRETCHER/PRENSIONING SYSTEM BUILDING

MECHANICAL DETAILS - 1



SHEET ID

M-501

9/24/2021 3:44:17 PM 1 2 3 4 5 6

AIR CONDITIONING UNIT SCHEDULE																				
SYMBOL	AREA SERVED	BASIS OF DESIGN		SUPPLY FAN				COOLING CAPACITY				ELECTRIC HEATING			ELECTRICAL				MAX WT (LBS)	NOTES
		MFR	MODEL	TOTAL CFM	MIN OA CFM	ESP (IN H2O)	HP PER FAN	TOTAL CAP (MBH)	SENS CAP (MBH)	EER	IEER	KW	EAT	OAT	VOLTS	PH	MCA	MOCP		
AC-1	SEE PLAN	TRANE	YHD240	8000	1200	1.2	1.00	240	192	10	11.4	72	65	10	208	3	196	225	2400	1, 2, 3, 5, 6, 7, 8, 9, 10, 11, 12
NOTES: 1. PROVIDE PRE-FABRICATED CURB, MINIMUM 14" HIGH 2. PROVIDE BACnet COMMUNICATION INTERFACE (BCI), LOW LEAK ECONOMIZER, AUXILIARY ELECTRIC HEAT, HINGED ACCESS DOORS, FAN MOTOR SHAFT GROUNDING, COMPRESSOR SHORT-RECYCLE CONTROLS. 3. UNIT REFRIGERANT TO BE 410A 4. SINGLE POINT POWER CONNECTION 5. SINGLE ZONE VARIABLE AIR VOLUME UNIT WITH CONTINUOUS MODULATION. 6. PROVIDE NON-FUSED DISCONNECT AND POWERED CONVENIENCE OUTLET. 7. PROVIDE SMOKE DETECTORS IN SUPPLY AND/OR RETURN, AS REQUIRED BY LOCAL CODE. 8. PROVIDE MERV13 FILTERS. 9. DEMAND CONTROLLED VENTILATION (DCV) 10. APPROVED EQUALS: CARRIER, LENNOX. 11. CONDENSER COILS WITH HAIR GUARDS 12. PROVIDE ECONOMIZER HOOD																				


AIR DEVICE SCHEDULE								
SYMBOL	MANUFACTURER	MODEL	SERVICE	TYPE	FACE	MAX NC LEVEL	COLOR	NOTES
SR-1	TITUS	272 FS	SUPPLY	DUCT MOUNTED	12X8	30	SEE NOTES	1, 2, 3,
CD-1	TITUS	OMNI	SUPPLY	SURFACE MOUNTED	12X12	35	SEE NOTES	1, 2, 3,
RG	TITUS	350 FS	RETURN / EXHAUST	DUCT MOUNTED	24X36	35	SEE NOTES	1, 2, 3,
NOTES: 1 SEE DIFFUSER CONNECTION DETAIL 2 APPROVED EQUAL: ANEMOSTAT, PRICE. 3 GALVANIZED OR PAINT SILVER. TO MATCH GALVANIZED OR SPIRAL BOUND DUCTWORK								

MINIMUM VENTILATION CALCULATIONS									
HVAC UNIT	Az NET OCCUPIABLE FLOOR AREA (SF)	DEFAULT OCCUPANT DENSITY (#/1000SF)	Rp PEOPLE OUTDOOR AIR RATE (CFM / PERSON)	Ra AREA OUTDOOR AIR FLOW RATE (CFM/SQ FT)	DEFAULT ZONE POPULATION	Pz ACTUAL ZONE POPULATION	Vbz BREATHING ZONE OUTDOOR AIRFLOW (CFM)	EZ ZONE AIR DISTRIBUTION EFFECTIVENESS	Voz ZONE OUTDOOR AIRFLOW (CFM)
AC-1	6000	40	7.5	0.06	144	65	848	0.8	1060
NOTES: 1. BASED ON ASHRAE 62.1									
ACTUAL:									1200

ELECTRIC HEATER SCHEDULE							
SYMBOL	AREA SERVED	BASIS OF DESIGN		ELECTRICAL			NOTES
		MFR	MODEL	VOLTS	PH	KW	
EH-1	SEE PLAN	MARLEY	AWH4508F	208	3	4.8	1, 2, 3, 4, 6
EH-2	SEE PLAN	MARLEY	AWH4508F	208	3	4.8	1, 2, 3, 4, 6
UH-1	SEE PLAN	RITTLING	RFRC-420	208	3	5	1, 2, 3, 4, 5, 6
UH-2	SEE PLAN	QMARK	MUH	208	3	5	1, 2, 3, 4, 6
UH-3	SEE PLAN	QMARK	MUH	208	3	5	1, 2, 3, 4, 6
NOTES: 1 INSTALL PER MANUFACTURER'S RECOMMENDATIONS 2 INTEGRATED TAMPER-PROOF THERMOSTAT 3 PROVIDE QMARK CDF-RE RECESS ENCLOSURE AND CDF-TK TRIM KIT 4 PROVIDE WITH AUTO-RESET THERMAL OVERLOADS 5 HEATER TO BE RECESSED IN CEILING 6 OR EQUALS: DAYTON, KING							

EXHAUST FAN SCHEDULE		
DESIGNATION	EF-1/EF-2/EF-3	
MANUFACTEURER	PENN BARRY	
TYPE	CABINET	
MODEL	Z5H	
CFM	100	
STATIC PRESSURE	0.375"	
RPM	1550	
ELECTRICAL	115/1/60	
WATTAGE	83	
STYLE	TDA	
OPTIONS	1,2,3,4,5,6,7	
SERVICE	RESTROOMS	

1. SPEED CONTROL  
2. VIBRATION ISOLATORS  
3. DISCONNECT SWITCH  
4. SWITCHED THROUGH BREAKER ONLY  
5. BACKDRAFT DAMPER  
6. WALL CAP  
7.FAN ON/OFF LIGHT SWITCH



US Army Corps of Engineers®

REVISIONS

DESIGNED BY: DSN

DRAWN BY: CRW

CHECKED BY: CHK

APPROVED BY: APR

DATE: 09/24/2021


PROJECT NO.: 60620247

U.S. ARMY CORPS OF ENGINEERS  
KANSAS CITY DISTRICT

AECOM  
100 RED SCHOOLHOUSE RD  
CHESTNUT RIDGE, NY

ROEBLING STEEL SUPERFUND SITE  
VILLAGE OF ROEBLING - FLORENCE TOWNSHIP, NJ  
OPERABLE UNIT 4 - PRESTRETCHER/PRE-TENSIONING SYSTEM BUILDING

MECHANICAL SCHEDULES - 1



SHEET ID  
M-601

VERIF SCALE BAR IS ONE INCH ON ORIGINAL DRAWING

ABBREVIATIONS - PLUMBING	
NOTE: NOT ALL ABBREVIATIONS MAY BE USED.	
ABBREVIATION	DESCRIPTION
(D)	EXISTING TO BE DEMOLISHED
(E)	EXISTING TO REMAIN
(F)	FUTURE
AD	AREA DRAIN
AFF	ABOVE FINISHED FLOOR
AFG	ABOVE FINISHED GRADE
AG	AIR GAP
AMP	AMPERGE
AVTR	ACID VENT THRU ROOF
BFP	BACKFLOW PREVENTOR
BHP	BRAKE HORSEPOWER
BV	BALANCE VALVE
CFH	CUBIC FEET PER HOUR
CFM	CUBIC FEET PER MINUTE
CO	CLEANOUT
DCBP	DOUBLE CHECK BACKFLOW PREVENTOR
DFU	DRAINAGE FIXTURE UNIT
DN	DOWN
DWV	DRAIN WASTE VENT
EL	ELEVATION
EX	EXISTING
FCO	FLOOR CLEAN OUT
FD	FLOOR DRAIN
FLA	FULL LOAD AMPS
FM	FLOW METER
FU	FIXTURE UNIT
QPD	GALLONS PER DAY
GPH	GALLONS PER HOUR
GPM	GALLONS PER MINUTE
HB	HOSE BIBB
HD	HUB DRAIN
HP	HORSEPOWER
IE	INVERT ELEVATION
INV	INVERT
KW	KILOWATT
MAV	MANUAL AIR VENT
MAX	MAXIMUM
MCA	MINIMUM CIRCUIT AMPACITY
MIN	MINIMUM
MOCP	MAXIMUM OVER CURRENT PROTECTION
NA	NOT APPLICABLE
NIC	NOT IN CONTRACT
NOM	NOMINAL
NPSH	NET POSITIVE SUCTION HEAD
NTS	NOT TO SCALE
OFD	OVERFLOW ROOF DRAIN
PD	PRESSURE DROP
PPM	PARTS PER MILLION
PRV	PRESSURE REDUCING VALVE
PSI	POUNDS PER SQUARE INCH
PSIA	POUNDS PER SQUARE INCH - ABSOLUTE
PSIG	POUNDS PER SQUARE INCH - GAGE
PTRV	PRESSURE TEMPERATURE RELIEF VALVE
RD	ROOF DRAIN
REX	REMOVE EXISTING
RLA	RUNNING LOAD AMPERE
RPBP	REDUCED PRESSURE BACKFLOW PREVENTOR
RPM	REVOLUTIONS PER MINUTE
SCFM	STANDARD CUBIC FEET PER MINUTE
TDH	TOTAL DYNAMIC HEAD
TMV	THERMOSTATIC MIXING VALVE
TP	TRAP PRIMER
TYP	TYPICAL
U/G	UNDERGROUND
VTR	VENT THRU ROOF
W	WATTS
WCO	WALL CLEANOUT
WG	WATER GAGE
WH	WALL HYDRANT
WHA	WATER HAMMER ARRESTOR
WM	WATER METER
WPD	WATER PRESSURE DROP
YCO	YARD CLEANOUT
°F	DEGREES FAHRENHEIT
ΔP	CHANGE IN PRESSURE
ΔT	CHANGE IN TEMPERATURE
∅	DIAMETER

ABBREVIATIONS - PLUMBING PIPING	
NOTE: NOT ALL ABBREVIATIONS MAY BE USED.	
ABBREVIATION	DESCRIPTION
AV	ACID VENT
AW	ACID WASTE
CA	COMPRESSED AIR
CAI	COMPRESSED AIR INTAKE
CV	CENTRAL VACUUM
CVE	CENTRAL VACUUM EXHAUST
CW	COLD WATER
D	DRAIN
DCW	DOMESTIC COLD WATER
DHW	DOMESTIC HOT WATER
DHWR	DOMESTIC HOT WATER RETURN
DI	DEIONIZED WATER
DS	DOWN SPOUT
DW	DISTILLED WATER
G	NATURAL GAS
GV	GREASE VENT
GW	GREASE WASTE
HW	HOT WATER
IRW	IRRIGATION
LCW	LABORATORY COLD WATER
LHW	LABORATORY HOT WATER
LP	LIQUID PROPANE
NPW	NON POTABLE WATER
OW	OIL WASTE
PD	PUMPED DISCHARGE
RHW	RECIRCULATING HOT WATER
RO	REVERSE OSMOSIS
ROR	REVERSE OSMOSIS RETURN
ROS	REVERSE OSMOSIS SUPPLY
SAN	SANITARY
SCW	SOFTENED COLD WATER
SST	STORM (SECONDARY)
ST	STORM
TW	TEPID WATER
TWR	TEPID WATER RETURN
TWS	TEPID WATER SUPPLY
V	VENT
VAC	VENT

ABBREVIATIONS - FIXTURES/EQUIP.	
NOTE: NOT ALL ABBREVIATIONS MAY BE USED.	
ABBREVIATION	DESCRIPTION
AWNT-#	ACID WASTE NEUTRALIZATION TANK
BT-#	BATH TUB
CS-#	CLINIC SINK
DAC-#	DENTAL AIR COMPRESSOR
DF-#	DRINKING FOUNTAIN
DVP-#	DENTAL VACUUM PUMP
ESH-#	EMERGENCY SHOWER
ET-#	EXPANSION TANK
EWC-#	ELECTRIC WATER COOLER
EWH-#	ELECTRIC WATER HEATER
EWS-#	EYE WASH STATION
FD-#	FLOOR DRAIN
FS-#	FLOOR SINK
GT-#	GREASE TRAP
GWH-#	GAS WATER HEATER
HS-#	HAND SINK
HST-#	HOT WATER STORAGE TANK
HWB-#	HOT WATER BOILER
HWCP-#	HOT WATER CIRCULATING PUMP
IWH-#	INSTANTANEOUS WATER HEATER
LAV-#	LAVATORY
MSB-#	MOP SERVICE BASIN
P-#	PUMP
RCP-#	RECIRCULATION PUMP
S-#	SINK
SE-#	SEWAGE EJECTOR
SH-#	SHOWER
SP-#	SUMP PUMP
SS-#	SERVICE SINK
SWH-#	STEAM WATER HEATER
U-#	URINAL
WC-#	WATER CLOSET
WH-#	WATER HEATER

PLUMBING SYMBOLS LIST	
NOTE: NOT ALL SYMBOLS MAY BE USED.	
SYMBOL	DESCRIPTION
	KEYNOTE (SEE LEGEND ON SHEET)
	FLOW ARROW
	CONNECT TO EXISTING
	END OF DEMOLITION
	PIPE CAPPED
	PIPE UNION
	PIPE GUIDES OR SLEEVES
	PIPE ANCHOR
	FLEXIBLE PIPE CONNECTION
	GENERAL SERVICE VALVE (SEE SPECIFICATIONS FOR VALVE TYPE PER APPLICATION)
	CHECK VALVE (ARROW INDICATES DIRECTION OF FLOW)
	MANUAL BALANCING VALVE
	AUTOMATIC BALANCING VALVE
	SOLENOID VALVE
	TWO-WAY CONTROL VALVE
	THREE-WAY CONTROL VALVE
	TWO-WAY PRESSURE INDEPENDENT CONTROL AND BALANCE VALVE
	THERMOSTATIC MIXING VALVE
	PRESSURE REDUCING VALVE
	VACUUM BREAKER
	PLUG VALVE
	TEMPERATURE AND PRESSURE RELIEF VALVE
	DRAIN VALVE WITH THREADED HOSE CONNECTION
	REDUCED PRESSURE BACKFLOW PREVENTER
	PRESSURE GAUGE WITH STOPCOCK
	STRAINER WITH BLOW DOWN VALVE
	AUTOMATIC AIR VENT
	MANUAL AIR VENT
	TEMPERATURE/PRESSURE TEST PLUG (PETE'S PLUG)
	WATER FLOW SWITCH
	PRESSURE SWITCH
	CLEAN OUT
	WALL CLEAN OUT
	FLOOR CLEAN OUT
	GRADE CLEAN OUT
	AREA DRAIN
	FLOOR DRAIN
	OVERFLOW ROOF DRAIN
	ROOF DRAIN
	HOSE BIBB
	WALL HYDRANT
	YARD HYDRANT
	FLOW METER
	THERMOMETER
	PITCH DOWN IN DIRECTION OF ARROW
	METER
	RISER OR STACK DESIGNATION & NUMBER
	HOT WATER MAINTENANCE CABLE START POINT
	HOT WATER MAINTENANCE CABLE TEE POINT
	HOT WATER MAINTENANCE CABLE END POINT

PLUMBING GENERAL NOTES

- FIELD VERIFY ALL SIZES AND LOCATION OF EXISTING UTILITIES REQUIRED FOR PLUMBING SERVICE. NOTIFY ARCHITECT/ENGINEER OF DEVIATIONS WHICH AFFECT PROPOSED WORK PRIOR TO PROCEEDING WITH THE WORK.
- PLUMBING REQUIRED MULTIPLE SUBSURFACE SYSTEMS TO BE INSTALLED PRIOR TO POURING OF THE FLOOR SLAB (SANITARY, VENT, AND WATER).
- PROMPTLY REMOVE WSTE MATERIALS FROM THE PROPERTY, OTHER THAN THOSE SPECIFIED HEREIN OR NOTED ON THE DRAWINGS AS BEING REUSED OR SALVAGED.
- PROMPTLY REPAIR ANY ITEMS DAMAGED DURING PROCESS OF THIS WORK, INCLUDING ANY DAMAGE TO STRUCTURE, PAVEMENT, SIDEWALKS OR ADJACENT GROUND CAUSED BY TRANSPORTING MATERIALS OR EQUIPMENT.
- INFORMATION CONTAINED IN THESE DRAWINGS WAS OBTAINED FROM ARCHIVED DRAWINGS AND SITE VISITS. NOT ALL EXISTING UTILITIES MAY BE SHOWN.
- COORDINATE EXACT REQUIREMENTS AND LOCATION OF WORK WITH THE WORK OF OTHER TRADES PRIOR TO FABRICATION. PROVIDE ADDITIONAL OFFSETS AND SECTIONS OF PIPING AS MAY BE REQUIRED TO MEET THE APPLICABLE JOB CONDITION REQUIREMENTS. VERIFY JOB-SITE ELEVATIONS, DIMENSIONS, AND CONDITIONS. PRIOR TO FABRICATION OR INSTALLATION OF THE WORK. COORDINATE EXACT ROUTING OF PIPING WITH OTHER TRADES SO THAT NO CONFLICTS OCCUR WITH DUCTWORK, PIPING, LIGHTS, STRUCTURE, ETC.
- VISIT THE SITE OF THE WORK TO GAIN AN ACCEPTABLE KNOWLEDGE OF CONDITIONS AFFECTING THE EXECUTION OF THE WORK. AFTER VISITING THE SITE, REQUEST SUCH INFORMATION AND/OR CLARIFICATIONS AS NECESSARY TO FULLY UNDERSTAND THE WORK REQUIRED AND TO PROPERLY ESTIMATE COSTS.
- ENSURE THAT WORK WILL NOT INTERFERE OR INTERRUPT SERVICES TO AREAS OUTSIDE OF THE DESIGNATED CONTRACT AREAS. AS ANY INTERRUPTIONS OF EXISTING SERVICES BECOMES NECESSARY, SCHEDULE SUCH INTERRUPTIONS WITH THE OWNER PRIOR TO THEIR COMMENCEMENT. THE GIVE THE OWNER NO LESS THAN TWO WEEKS NOTICE AS TO WHEN HE EXPECTS SUCH INTERRUPTIONS. WORK SHALL BE PERFORMED AT SUCH TIMES AS DIRECTED BY THE OWNER.
- ALL FLOOR PENETRATIONS TO BE SEALED WATER TIGHT AND COMPLETELY PACKED WITH SEALANT OR FIRE STOP MATERIAL WHERE APPLICABLE BY TRADE CONTRACTORS.
- PROVIDE ALL MATERIALS AND EQUIPMENT AND PERFORM ALL LABOR REQUIRED TO INSTALL COMPLETE AND OPERABLE SYSTEMS AS INDICATED ON THE DRAWINGS AND SPECIFICATIONS. INCLUDE ALL NECESSARY AND APPLICABLE APPURTENANCES, WHETHER INDICATED OR NOT.

PLUMBING GENERAL NOTES

- INSTALL ALL WORK TO COMPLY WITH ALL LAWS, REGULATIONS, CODES AND STANDARDS (FEDERAL, STATE, AND LOCAL), AS ADOPTED BY THE AGENCIES HAVING JURISDICTION, INCLUDING REASONABLY ANTICIPATED REVISIONS BASED ON EMERGING TRENDS IN BUILDING REGULATIONS. WHERE ANY OF THESE DIFFER, THE MOST STRINGENT SHALL APPLY.
- COORDINATE THE LOCATION OF ALL UTILITY CONNECTION POINTS, FLOOR DRAINS AND HUB DRAINS FOR EQUIPMENT WITH OTHER TRADES.
- PROVIDE LINE SIZED SHUT-OFF VALVE IN ALL HOT AND COLD WATER BRANCHES SERVING PLUMBING FIXTURES OR EQUIPMENT.
- PROVIDE A WATER HAMMER ARRESTOR ON COLD WATER LINES AT ENDS OF MAINS, AT ENDS OF BRANCH LINES, AT END OF LINES SERVING GROUPS OF PLUMBING FIXTURES AND FOR ALL QUICK CLOSING VALVES. SIZE AND INSTALL ARRESTORS AS RECOMMENDED BY PDI WH-201 TO ELIMINATE WATER HAMMER. INSTALL WHERE ACCESSIBLE FOR SERVICE AND PROVIDE ISOLATION VALVE AND ACCESS DOOR IF REQUIRED.
- PROVIDE ACCESS PANEL IN DRYWALL CEILINGS TO ACCESS ITEMS SUCH AS VALVES.
- THE CONTRACTOR IS RESPONSIBLE FOR FIRESTOPPING AT ALL PLUMBING RELATED PENETRATIONS OF FIRE, SMOKE AND OTHER RATED STRUCTURES, INCLUDING FLOORS, WALLS, PARTITIONS, ETC.. REFER TO ARCHITECTURAL DOCUMENTATION FOR LOCATIONS OF ALL RATED STRUCTURES, AND SPECIFIC INFORMATION AND REQUIREMENTS PERTAINING TO SAME.
- LAYOUT AND INSTALLATION OF PIPING, EQUIPMENT AND APPURTENANCES INDICATED ON PLAN IS SCHEMATIC IN NATURE. EXACT LOCATION, ROUTING AND INSTALLATION TO BE COORDINATED WITH BUILDING STRUCTURES AND ALL OTHER TRADES.
- UNLESS INDICATED OTHERWISE, ALL FIXTURES AND EQUIPMENT PROVIDED WITH PLUMBING SUPPLY PIPING TO BE FURNISHED WITH APPROVED/LISTED STOPS IN ACCESSIBLE LOCATIONS.
- UNLESS INDICATED OTHERWISE BY THE ARCHITECTURAL DOCUMENTATION (WHICH SHALL TAKE PRECEDENCE), PLUMBING FIXTURES AND EQUIPMENT MOUNTING HEIGHTS SHALL BE AS INDICATED ON PLUMBING FIXTURE SCHEDULE.
- PLUMBING PIPING IS NOT PERMITTED TO RUN ABOVE ANY ELECTRICAL SWITCH GEAR, MOTOR CONTROL CENTERS OR PANELS (INCLUDING ACCESS/CLEARANCE SPACE 42" IN FRONT OF THESE ITEMS, AND MIN 30" WIDE), WITHOUT ADDITIONAL PROTECTIONS. LOCATION OF NEW ITEMS OF THESE TYPES TO BE DETERMINED AND CONFIRMED FROM INDICATION BY THE PROJECT ELECTRICAL DOCUMENTATION, AND ACTUAL INSTALLATION CONFIRMED WITH THE ELECTRICAL CONTRACTOR PRIOR TO START OF WORK.
- THE SIZES OF SOIL, WASTE, VENT AND WATER BRANCH PIPING TO SINGLE FIXTURES SHALL BE AS SCHEDULED IN THE PLUMBING FIXTURE SCHEDULE.
- CONTRACTOR TO PROVIDE MISCELLANEOUS STEEL AS REQUIRED TO SUPPORT EQUIPMENT AND ASSOCIATED COMPONENTS SUCH AS CONTROL PANELS, TANKS, VALVES, PIPING, VARIABLE SPEED DRIVES, ETC. MISCELLANEOUS STEEL TO CONSIST OF GALVANIZED STRUT, ANGLE IRON, CHANNELS OR OTHER STANDARD GALVANIZED STEEL ELEMENTS. ALL WELDED CONNECTIONS TO BE GROUND AND COLD GALVANIZED IN THE FIELD.
- PROVIDE BACKFLOW PREVENTER OR VACUUM BREAKER IN DOMESTIC WATER LINES, WHERE BACKFLOW OR BACK PRESSURE MAY OCCUR, AS REQUIRED BY THE STATE OR LOCAL JURISDICTION. EQUIPMENT SUCH AS STERILIZERS, COFFEE MAKERS, WASHERS/DISINFECTORS, ULTRASONIC CLEANERS, CARBONATED VENDING MACHINES, WATER COOLED ICE MAKERS, SHOWER MIXING VALVES WITH HOSES, HOSE BIBBS AND WALL HYDRANTS ARE TO INCLUDE BACKFLOW PREVENTION DEVICES IN THE WATER LINES THAT SERVE THEM.
- ALL SANITARY VENT LINES ARE TO TAKE OFF FROM SANITARY WASTE BRANCHES AT 45 DEGREE RISE OFF TOP OF PIPE.
- PROVIDE SHUT-OFF BALL VALVE IN WATER LINES SERVING TRAP PRIMER DISTRIBUTION UNITS, BALANCING VALVES AND WATER HAMMER ARRESTORS.

PLUMBING SHEET INDEX	
SHEET NUMBER	SHEET TITLE
P-001	GENERAL INFO - PLUMBING
P-100	PLUMBING SITE PLAN
P-101	PLUMBING FLOOR PLAN
P-501	ENLARGED PLUMBING PLANS
P-601	PLUMBING ISOMETRICS
P-602	PLUMBING DETAILS
P-701	PLUMBING SPECS

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REVISIONS	DATE	MARK	DESCRIPTION

DESIGNED BY: R. MEADOR	DATE: 09/24/2021	PROJECT NO.: R0620247
DRAWN BY: AECOM	CHECKED BY: R. MEADOR	APPROVED BY: C. HUNT

U.S. ARMY CORPS OF ENGINEERS  
KANSAS CITY DISTRICT

AECOM  
100 RED SCHOOLHOUSE RD  
CHESTNUT RIDGE, NY

ROEBLING STEEL SUPERFUND SITE  
VILLAGE OF ROEBLING - FLORENCE TOWNSHIP, NJ  
OPERABLE UNIT 4 - PRESTRETCHER/PRE-TENSIONING SYSTEM BUILDING

**GENERAL INFO - PLUMBING**

SHEET ID

**P-001**

VERIFY SCALE BAR IS ONE INCH ON ORIGINAL DRAWING

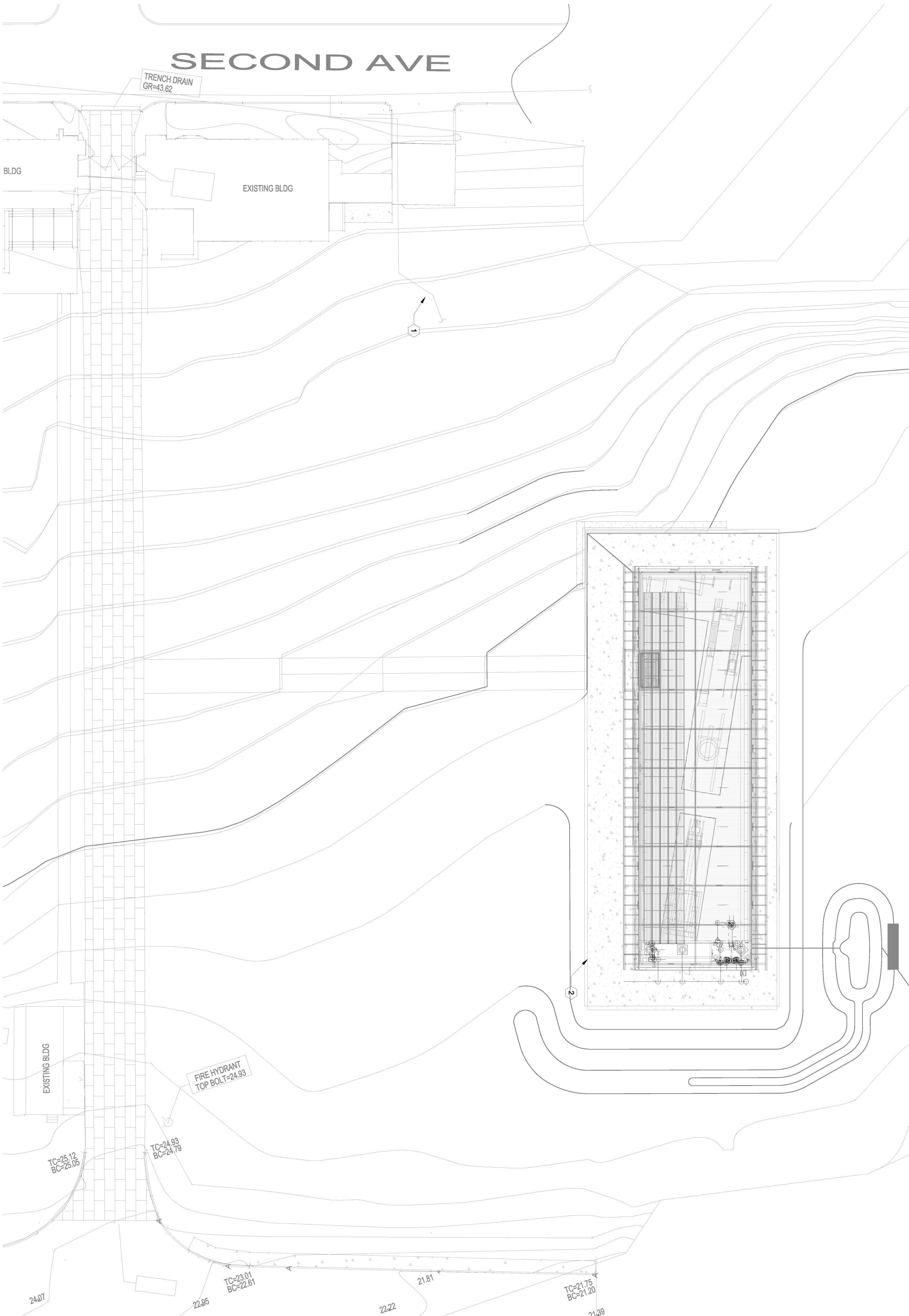
A  
B  
C  
D  
E  
F  
G  
H

GENERAL NOTES

A. SEE SHEET P-001.

SHEET KEYED NOTES

1. APPROXIMATE LOCATION OF EXISTING WATER VALVE CONNECTION. REFER TO CIVIL DRAWINGS FOR SIZING AND ROUTING TO BUILDING. REFER TO SHEET P-001 FOR REQUIRED SIZE AND PRESSURE AT BUILDING.
2. APPROXIMATE LOCATION OF SANITARY LIFT STATION. REFER TO CIVIL DRAWINGS FOR SIZING AND ROUTING TO SANITARY SEWER.



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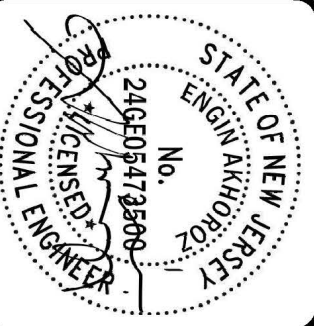
DESIGNED BY: R. MEADOR	DATE: 09/24/2021
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U.S. ARMY CORPS OF ENGINEERS  
KANSAS CITY DISTRICT

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VILLAGE OF ROEBLING - FLORENCE TOWNSHIP, NJ  
OPERABLE UNIT 4 - PRESTRETCHER/PRETENSIONING SYSTEM BUILDING

PLUMBING SITE PLAN



SHEET ID  
P-100

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1

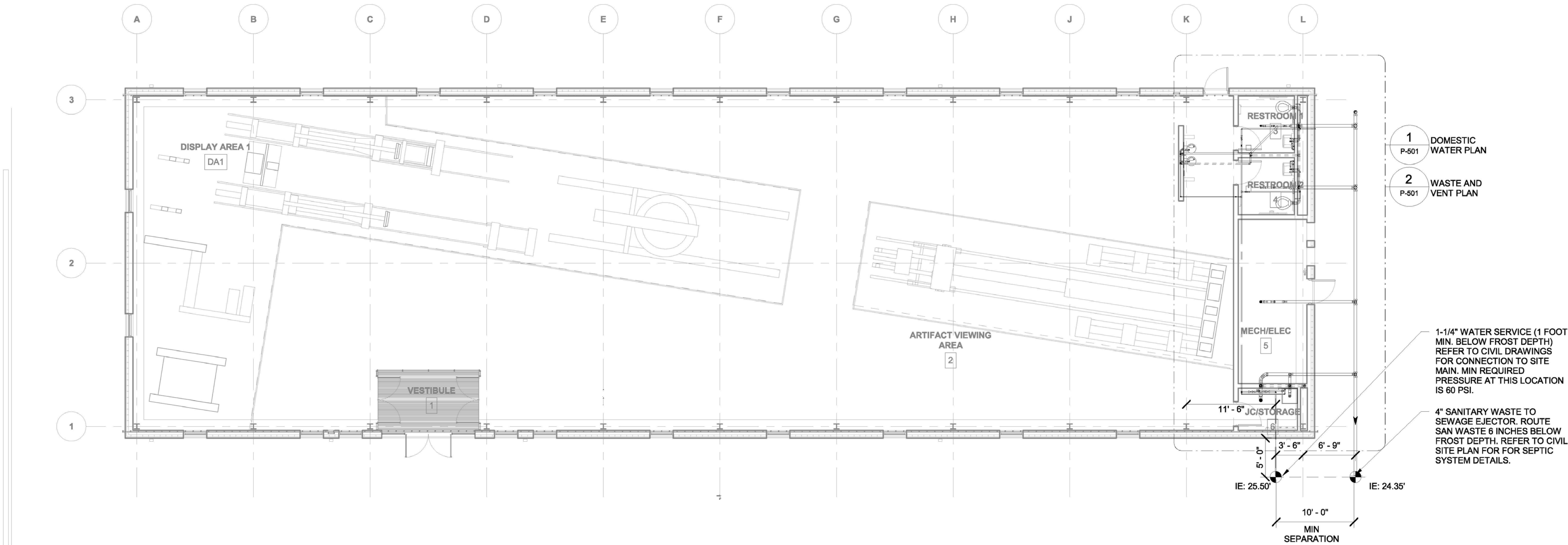
2

3

4

5

6



OVERALL - PLUMBING  
FLOOR PLAN  
1/8" = 1'-0"

PLUMBING FIXTURE SCHEDULE		CONNECTION SIZES (IN)			
TAG	DESCRIPTION	SAN	V	HW	CW
BFP-1	REDUCED PRESSURE BACKFLOW PREVENTER BASIS: ZURN MODEL 375AST. STAINLESS STEEL BODY, STAINLESS STEEL STRAINER, GATE VALVES WITH FLANGE CONNECTIONS. FURNISH WITH WILKINS AG-4 1" NPT AIR GAP FITTING.	-	-	-	1-1/4"
DF-1	DRINKING FOUNTAIN BASIS: HAWS MODEL 1119 HI-LO WALL MOUNTED, BARRIER-FREE DRINKING FOUNTAIN SHALL INCLUDE DUAL 18 GAUGE TYPE 304 STAINLESS STEEL SATIN FINISH BASINS, PUSH-BUTTON OPERATED STAINLESS STEEL VALVES WITH FRONT-ACCESSIBLE CARTRIDGE AND FLOW ADJUSTMENT, 100% LEAD-FREE WATERWAYS, POLISHED CHROME-PLATED BRASS VANDAL-RESISTANT BUBBLER HEADS, POLISHED CHROME-PLATED BRASS VANDAL-RESISTANT WASTE STRAINERS, VANDAL-RESISTANT BOTTOM PLATES, STAINLESS STEEL SATIN FINISH BACK PANEL, HIGH AND LOW FOUNTAIN MOUNTING LEVELS, AND 1-1/4" NPT TRAPS.	2"	-	-	1/2"
EW-1	REST ROOM ELECTRIC WATER HEATER (MULTIPLE ON PROJECT) EEMAX SPEX3277CA, POINT OF USE, 4.1kW INPUT, 208V / 1 PHASE, 99% EFFICIENCY, 55°F RISE AT 0.5 GPM, 1/2" COMPRESSION FITTINGS AT BOTTOM OF UNIT.	-	-	1/2"	1/2"
EW-2	HOT WATER HEATER FOR MOP SERVICE BASIN. EEMAX MODEL EX1608T2, POINT OF USE, 16 KW INPUT, 208V / 1 PHASE, 55°F RISE AT 2.0 GPM, 3/4" NTP FITTINGS, UNIT MOUNTS ON WALL, FIELD SERVICEABLE REPLACABLE CARTRIDGE ELEMENT.	-	-	3/4"	3/4"
FD	FLOOR DRAIN BASIS: ZURN Z508, DURA-COATED CAST IRON BODY AND TOP WITH BOTTOM OUTLET, SEEPAGE PAN AND COMBINATION MEMBRANE FLASHING CLAMP AND FRAME FOR EXTRA-HEAVY-DUTY CAST IRON DEEP FLANGE SLOTTED GRATE. SURESEAL INLINE FLOOR DRAIN TRAP SEALER.	2" OR 3" PER PLAN	-	-	-
LAV-1	LAVATORY (MULTIPLE ON PROJECT) BASIS: AMERICAN STANDARD "DECORUM" WALL HUNG, VITREOUS CHINA, 21" X 20-1/4" SINGLE COMPARTMENT SINK. 3.5" CENTER DRAIN LOCATION, CENTER HOLE PUNCH ONLY. SHROUD/KNEE CONTACT GUARD. FAUCET BASIS: AMERICAN STANDARD "PARADIGM SELECTRONIC" DECK MOUNT ELECTRONIC (BATTERY) FAUCET WITH PROXIMITY OPERATION. PROVIDE AERATOR FOR 0.5 GPM OPERATION. WALL CARRIER BASIS: ZURN Z1231 CONCEALED WALL CARRIER FOR WALL LAVATORIES	2"	1-1/2"	3/4"	3/4"
WCO	WALL CLEAN OUT TEE W/ COVER BASIS: ZURN Z1446. DURA-COATED, CAST IRON BODY, SMOOTH STAINLESS STEEL WALL ACCESS COVER, GAS AND WATER TIGHT ABS TAPERED CLEANOUT PLUG.	4"	-	-	-
GCO	GRADE CLEAN-OUT (MULTIPLE ON PROJECT) BASIS: ZURN MODEL ZS-1400, DURA-COATED CAST-IRON BODY, ADJUSTABLE WITH ROUND HEAVY DUTY TOP AND CLEAN-OUT PLUG.	4"	-	-	-
MSB-1	MOP SINK BASIS: FIAT MODEL TSB100, 24"x24" ONE-PIECE, PRECAST TERRAZZO MOP SERVICE BASIN. 12" DEEP, STAINLESS STEEL CAPS ON ALL SIDES. 3-INCH DRAIN FAUCET BASIS: FIAT 830AA, STRAIGHT SERVICE SINK FAUCET WITH LEVER HANDLE, CHROME PLATED WITH INTEGRAL VACUUM BREAKER, STRAIGHT SPOUT. PROVIDE AERATOR FO 1.5 GPM MAX. FLOW	2"	1-1/2"	3/4"	3/4"
SA-1	SHOCK ARRESTOR BASIS: WATTS MODEL LF15M2-DRPRE-CHARGED WATER HAMMER ARRESTOR WITH POLYPROPYLENE PISTON. EPDM O-RING, BRASS NPT THREADED CONNECTION.	-	-	1/2"	1/2"
TMV-1	MIXING VALVE - LAVATORIES BASIS: WATTS MODEL LFUSG-B THERMOSTATIC MIXING VALVE, LEAD-FREE, 4-PORT "H" BODY PATTERN, INTEGRAL CHECK VALVES, INTEGRAL FILTER SCREENS. ASSE STANDARD 1070. ADJ. TEMPERATURE RANGE OF 80F TO 120F.	-	-	1/2"	1/2"
WC-1	WATER CLOSET BASIS: TOTO "EP" CWT428CMFG WALL MOUNTED, UNIVERSAL HEIGHT, HIGH EFFICIENCY DUAL FLUSH (1.28 GPF & 0.9 GPF) TOILET. TOILET SHALL BE MOUNTED TO IN-WALL TANK SYSTEM, ELONGATED FRONT BOWL AND WALL MOUNTED PUSH-BUTTON TYPE TRIP LEVER. ACTUATOR AND CARRIER BASIS: GEBERIT DUOFIX111.012.00.1 IN-WALL CARRIER SYSTEM AND CONCEALED TANK WITH ACTUATOR FLUSH PANEL FOR WALL-HUNG TOILETS. SYSTEM SHALL FIT WITHIN MINIMUM 51/2" FRAMING WALL OR PLUMBING CHASE, WITH STEEL FRAMING MEMBERS PLACED 19-3/4" APART. FRAMING MEMBERS SHOULD BE CAPABLE OF SUPPORTING A 880 POUND LOAD WITHOUT DAMAGE TO THE WALL. WATER SUPPLY SHALL HAVE FLOW DIAMETER NO SMALLER THAN 1/2" COPPER TUBE, AND A MINIMUM FLOW PRESSURE OF 2 PSI. THE CARRIER FRAME SHALL BE ADJUSTABLE FOR BOWL RIM HEIGHTS FROM 15" TO 19". ACTUATOR FLUSH PANELS SHALL BE FABRICATED STAINLESS STEEL AND PLATED TO PRESERVE MATERIAL INTEGRITY.	3"	-	-	3/4"
WH-1	WALL HYDRANT (EXTERIOR) BASIS: WATTS MODEL HY-725, CONCEALED NON-FREEZE KEY OPERATED WALL HYDRANT WITH INTEGRAL VACUUM BREAKER, 3/4" HOSE CONNECTION.	-	-	-	3/4"
WM-1	WATER METER/FLOW METER. BASIS: SIEMENS MODEL SITRANS F M. MICROPROCESSOR BASED TRANSMITTER WITH BUILT-IN ALPHA NUMERIC DISPLAY. PROVIDE WATER METER MANUFACTURER, TYPE AND SIZE AS APPROVED BY THE LOCAL AUTHORITY HAVING JURISDICTION AND UTILITY COMPANY.	-	-	-	1-1/4"

GENERAL NOTES

- A. REFER TO SHEET P-001.
- B. GRAVITY DRAIN TO SANITARY SEWER IS NOT FEASIBLE AT THIS SITE WITHOUT A LIFT STATION. REFER TO CIVIL FOR LIFT STATION SPECIFICATION AND ROUTING TO SANITARY MAIN.



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REVISIONS

MARK	DATE	DESCRIPTION

DESIGNED BY: R. MEADOR	DATE: 09/24/2021	PROJECT NO.: 60620247
DRAWN BY: AECOM	CHECKED BY: R. MEADOR	APPROVED BY: C. HUNT
U.S. ARMY CORPS OF ENGINEERS KANSAS CITY DISTRICT  AECOM 100 RED SCHOOLHOUSE RD CHESTNUT RIDGE, NY		

ROEBLING STEEL SUPERFUND SITE  
VILLAGE OF ROEBLING - FLORENCE TOWNSHIP, NJ  
OPERABLE UNIT 4 - PRESTRETCHER/PREENSIONING SYSTEM BUILDING

PLUMBING FLOOR PLAN

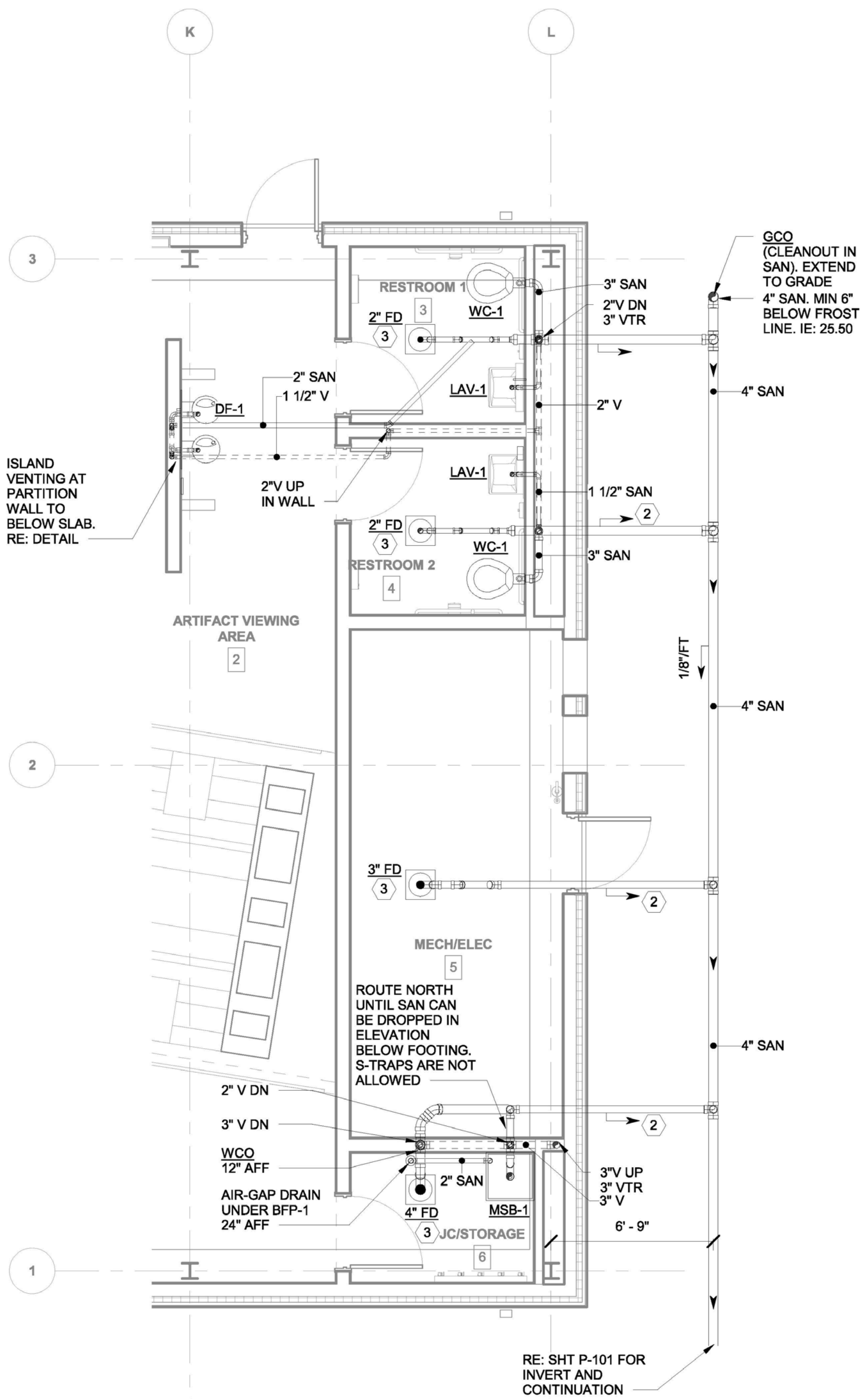


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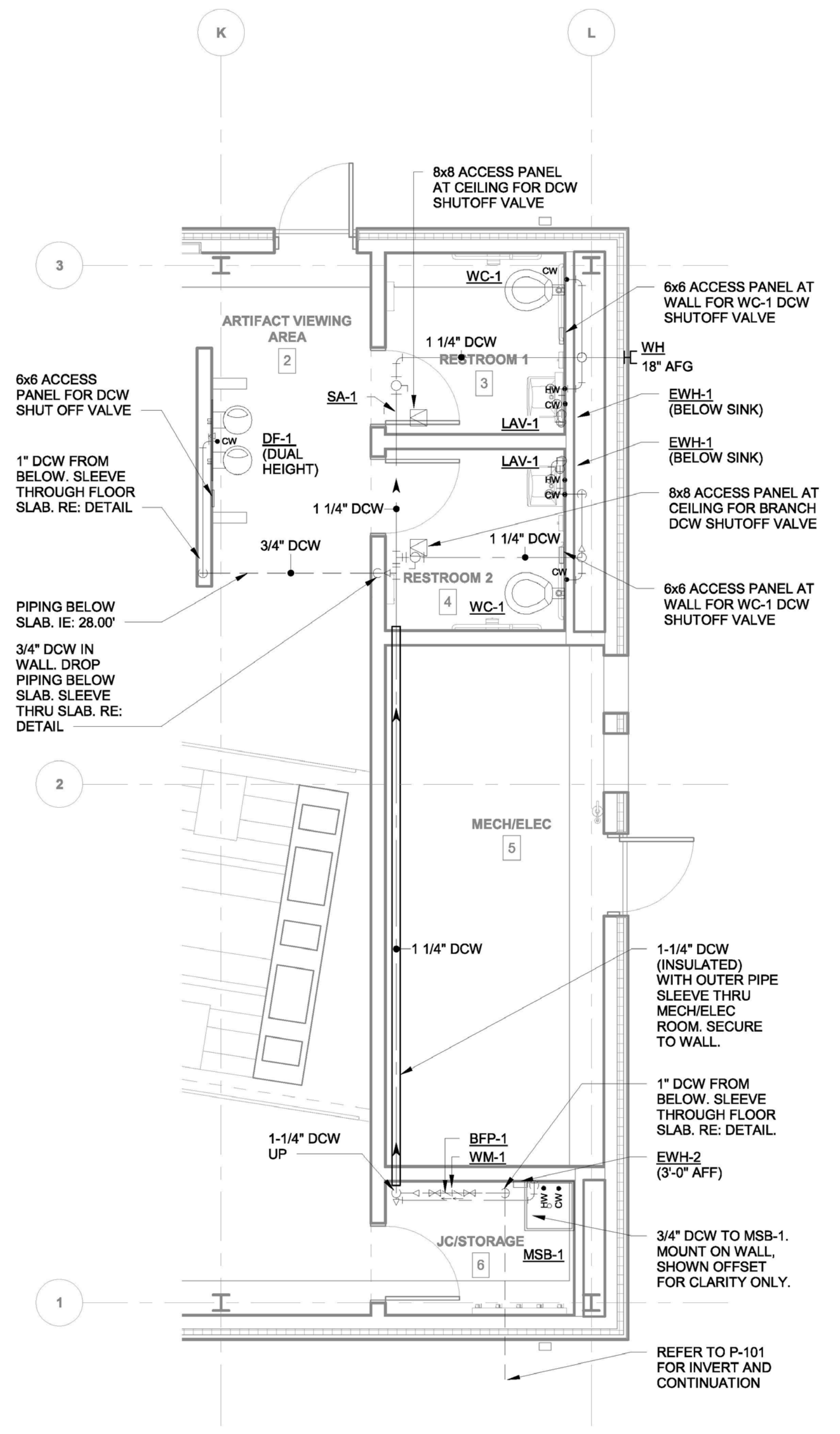
P-101

VERIFY SCALE BAR IS ONE INCH ON ORIGINAL DRAWING

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2  
P-501  
ENLARGED - WASTE AND VENT PLAN  
1/4" = 1'-0"



1  
P-501  
ENLARGED - DOMESTIC WATER PLAN  
1/4" = 1'-0"

GENERAL NOTES

- A. SEE SHEET P-001.
- B. ARCHITECTURAL FINISHED MAIN FLOOR ELEVATION IS 30'-0".

SHEET KEYED NOTES

- 1. 2" V UP. TRANSITION TO 3" FOR VENT THRU ROOF. COORDINATE ROOF PENETRATION WITH SOLAR PANEL INSTALLATION.
- 2. SANITARY WASTE BELOW GRADE. MIN. 6" BELOW FOOTING. SLOPE AS REQUIRED TO TIE INTO SANITARY MAIN. CONNECT TO TOP OF MAIN WITH LONG-SWEEP SANITARY WYE.
- 3. PROVIDE AUTOMATED TRAP PRIMERS AT FLOOR DRAINS.

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U.S. ARMY CORPS OF ENGINEERS  
KANSAS CITY DISTRICT

AECOM  
100 RED SCHOOLHOUSE RD  
CHESTNUT RIDGE, NY

ROEBLING STEEL SUPERFUND SITE  
VILLAGE OF ROEBLING - FLORENCE TOWNSHIP, NJ  
OPERABLE UNIT 4 - PRESTRETCHER/PRENSIONING SYSTEM BUILDING

**ENLARGED PLUMBING PLANS**

STATE OF NEW JERSEY  
ENGINEER  
No. 24605473506  
LICENSED PROFESSIONAL ENGINEER

SHEET ID  
**P-501**

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01/01/2019

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U.S. ARMY CORPS OF ENGINEERS KANSAS CITY DISTRICT	DESIGNED BY: R. MEADOR	DATE: 09/24/2021
	DRAWN BY: AECOM	PROJECT NO.: 60520247
	CHECKED BY: R. MEADOR	
100 RED SCHOOLHOUSE RD CHESTNUT RIDGE, NY	APPROVED BY: C.HUNT	

ROEBLING STEEL SUPERFUND SITE  
VILLAGE OF ROEBLING - FLORENCE TOWNSHIP, NJ  
OPERABLE UNIT 4 - PRESTRETCHER/PRETENSIONING SYSTEM BUILDING

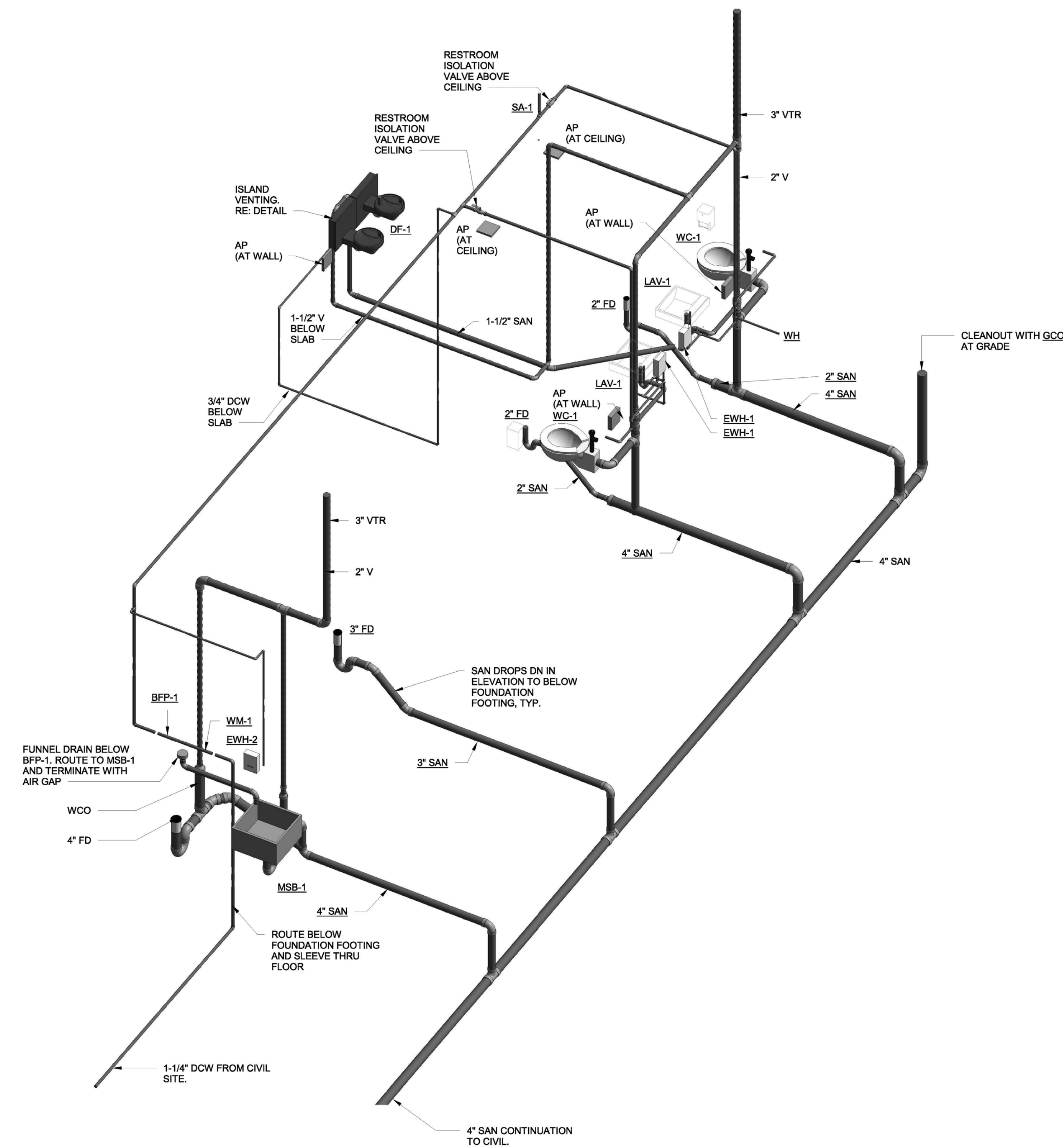
## PLUMBING ISOMETRICS



SHEET ID

P-601

**VERIFY SCALE** BAR IS ONE INCH ON ORIGINAL DRAWING



## PLUMBING SYSTEM ISOMETRIC

<b>1</b>	<b>THRU FLOOR WATER ENTRY DETAIL</b>
P-602	NTS

<b>2</b>	<b>WALL HYDRANT</b>
P-602	NTS

**NOTES:**  
1. FLOOR TO SLOPE TOWARDS DRAIN.

<b>3</b>	<b>FLOOR DRAIN FLASHING DETAIL</b>
P-602	NTS

P.D.I. SIZE	FIXTURE UNIT RATING	DIMENSIONS		
		A	B	C
A	1 - 11	1/2"	6 1/2" - 8 1/4"	1 3/8"
B	12 - 32	3/4"	8 3/4" - 10"	1 3/8"
C	33 - 60	1"	11" - 12 1/2"	1 3/8"
D	61 - 113	1"	10 1/8" - 11"	2 1/8"
E	114 - 154	1"	12 5/8" - 13 1/2"	2 1/8"
F	155 - 330	1"	15 1/8" - 16"	2 1/8"

**BASIS OF DESIGN:**  
**SIoux CHIEF ARRESTER 650 SERIES.**  
 NPT OR SWEAT CONNECTION

**BASIS OF DESIGN:**  
**SIOUX CHIEF ARRESTER 650 SERIES.**

—NPT OR SWEAT CONNECTION

**FLOOR CLEANOUT (FCO)**

**WALL CLEANOUT (WCO)**

<b>4</b>	<b>CLEANOUT DETAIL</b>
P-602	NTS

NOTES:

1. FLOW METERS SMALLER THAN 2.0" DIAMETER MAY BE SUPPORTED BY PIPING.

<b>5</b>	<b>WATER ENTRY DETAIL</b>
P-602	NTS

<b>6</b>	<b>ISLAND VENTING DETAIL</b>
P-602	NTS

REFER TO RISER DIAGRAMS FOR SIZES

WITHIN 6 FEET OF LAST FIXTURE

UNDER 20 FEET

OVER 20 FEET

SHOCK SOURCE

SHOCK SOURCE

SHOCK SOURCE

NOTES:

1. INSTALL ARRESTORS TO PERMIT AN UNOBSTRUCTED SHOCK PATH TO THE ARRESTOR.
2. INSTALL ARRESTORS AS NEAR TO THE SOURCE OF SHOCK AS POSSIBLE - ONE EACH ON THE HOT AND COLD WATER LINES.
3. PROVIDE AN ARRESTOR AS CLOSE AS POSSIBLE TO THE POINT OF QUICK CLOSURE ON LONG RUNS OF PIPING EMPLOYED TO SERVE A REMOTE FIXTURE OR ITEM OF EQUIPMENT.

THE SUM OF THE FIXTURE UNIT RATINGS OF UNITS X AND Y SHALL BE EQUAL TO OR GREATER THAN THE DEMAND OF THE BRANCH.

REFER TO RISER DIAGRAMS FOR SIZES

POINT OF RELIEF

UP TO 20'

OVER 20 FEET

THE SUM OF THE FIXTURE UNIT RATINGS OF UNITS X AND Y SHALL BE EQUAL TO OR GREATER THAN THE DEMAND OF THE BRANCH OVER 20 FEET.

<b>7</b>	<b>WATER HAMMER ARRESTOR DETAIL</b>
P-602	NTS



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2021

R. MEADOR

U.S. ARMY CORPS OF ENGINEERS

ROEBLING STEEL SUPERFUND SITE  
VILLAGE OF ROEBLING - FLORENCE TOWNSHIP, NJ  
OPERABLE UNIT 4 - PRESTRETCHER/PRETENSIONING SYSTEM BUILDING

## PLUMBING DETAILS



SHEET ID

P-602

**VERIFY SCALE** BAR IS ONE INCH ON ORIGINAL DRAWING



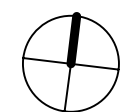


MAIN ST

SECOND AVE

SECOND AVE

FIRST AVENUE



ELECTRICAL SITE PLAN  
1" = 30'-0"

STUB CONDUIT UP AT EXISTING  
UTILITY POLE. COORDINATE  
REQUIREMENTS AND FINAL  
LOCATION WITH UTILTY.

NOTE 6  
(TYPICAL)

MONITORING WELL  
TO EL -257.13

MONITORING WELL  
TO EL -248.85

36" X 24" HANDHOLE

36" X 24" HANDHOLE

CONNECT (CADWELD)  
TO BUILDING STEEL  
(TYPICAL)

GROUNDING LOOP

4/0 BARE CU

CHAINLINK FENCE (TO BE RELOCATED)

MUSEUM

UTILITY TRANSFORMER

TEST WELL  
W/GROUND ROD  
GROUND ROD

F6  
L1#7

F6  
L1#7

F6  
L1#7

F6  
L1#7

F6  
L1#7

L1#7  
F6

RELOCATE  
UP POLE

GATE

GATE

EXISTING BLDG

WOOD  
GATE

EXISTING BLDG

REINFORCING WALL

CONC PAD

EXISTING BLDG



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U.S. ARMY CORPS OF ENGINEERS KANSAS CITY DISTRICT	AECOM 100 RED SCHOOLHOUSE RD CHESTNUT RIDGE, NY

ROEBLING STEEL SUPERFUND SITE  
VILLAGE OF ROEBLING, FLORENCE TOWNSHIP NJ -  
OPERABLE UNIT 4 - PRESTRECHER/PRETENSIONING SYSTEM BUILDING

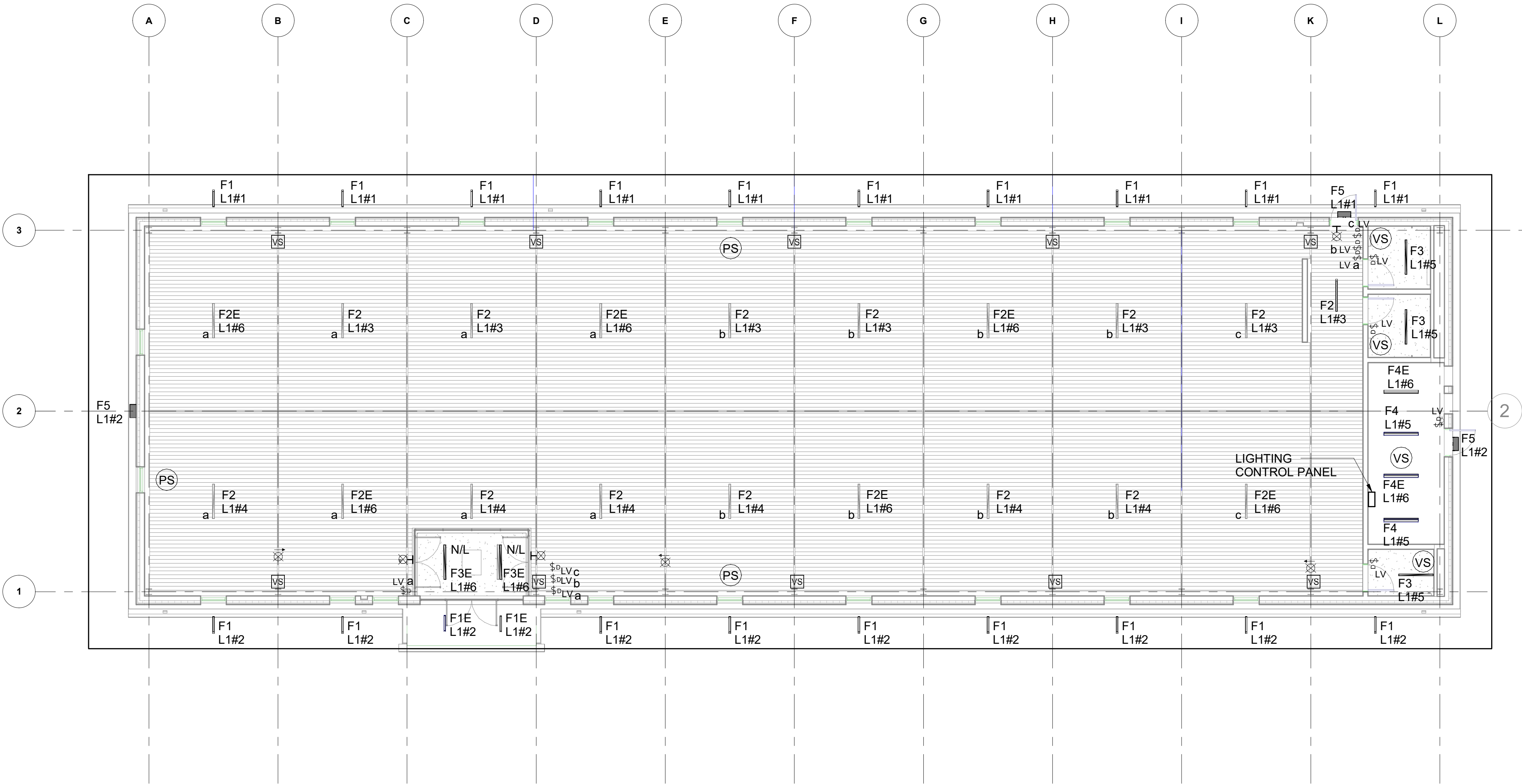
**ELECTRICAL SITE PLAN**

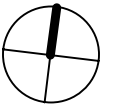


SHEET ID  
**E-101**

NOTES:

- GROUND AND BOND ALL EQUIPMENT IN ACCORDANCE WITH NEC.
- REFER TO ONE-LINE DIAGRAM FOR ELECTRIC SERVICE SIZE.
- COORDINATE CONDUIT ROUTING WITH ALL UNDERGROUND UTILITIES.
- COORDINATE REQUIREMENTS FOR SERVICE CONDUIT, TRANSFORMER PAD, METER, HANDHOLES, ETC. WITH UTILITY COMPANY, PRIOR TO INSTALLATION.
- FOR LEGENDS, ABBREVIATIONS AND GENERAL NOTES, REFER TO DRAWING E-100.
- FOR DUCT BANK DETAILS, REFER TO DRAWING E-501.



 **LIGHTING PLAN**  
1/8" = 1'-0"

LIGHTING PHOTOMETRICS		
ROOM	AVG. (FC)	AVG./MIN.
ELE. RM.	22.0	1.9:1
MAIN RM.	7.2	6.5
MEN'S RM.	10.7	1.3:1
JANITOR CL.	7.7	1.5:1
WMN.'S RM.	9.7	2.0:1
MAIN RM EMG	2.3	23.0:1

NOTES:

- THIS DRAWING SHOWS LIGHTING FIXTURE LOCATIONS ONLY. COORDINATE CONDUIT ROUTE IN FIELD WITH OTHER TRADES, EQUIPMENT, AND OWNER. VERIFY EXACT LOCATION AND MOUNTING HEIGHTS WITH OWNER & ARCHITECT PRIOR TO INSTALLATION.
- COORDINATE WITH MECHANICAL PLANS FOR FINAL LOCATION OF ALL DEVICES MOUNTED ON OR IN THE VICINITY OF THE MECHANICAL WORK.
- ALL EXTERIOR LIGHTING FIXTURES TO BE CONTROLLED BY INTEGRAL PHOTOCELLS AND MOTION SENSORS, AND TIED INTO THE BUILDING CENTRALIZED LIGHTING CONTROL SYSTEM FOR AUTOMATIC SCHEDULING AND DIMMING.
- PROVIDE UL LISTED EMERGENCY RELAY DEVICES TO ALLOW EMERGENCY FIXTURES TO BE SWITCHABLE, YET CONTINUOUSLY CONNECTED TO UTILITY POWER, AS REQUIRED.
- CONNECT EXIT SIGNS TO NEAREST EMERGENCY LIGHTING CIRCUIT. EXIT SIGNS SHALL BE UNSWITCHED.
- FOR LEGENDS, ABBREVIATIONS AND GENERAL NOTES, REFER TO DRAWING E-100.



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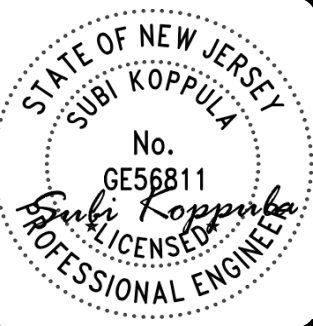
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ROEBLING STEEL SUPERFUND SITE  
VILLAGE OF ROEBLING, FLORENCE TOWNSHIP, NJ -  
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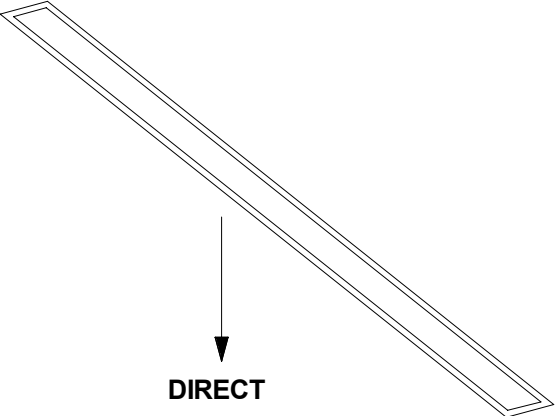
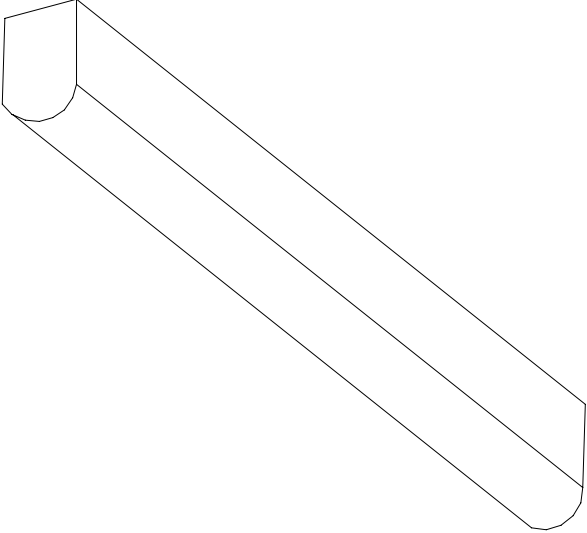
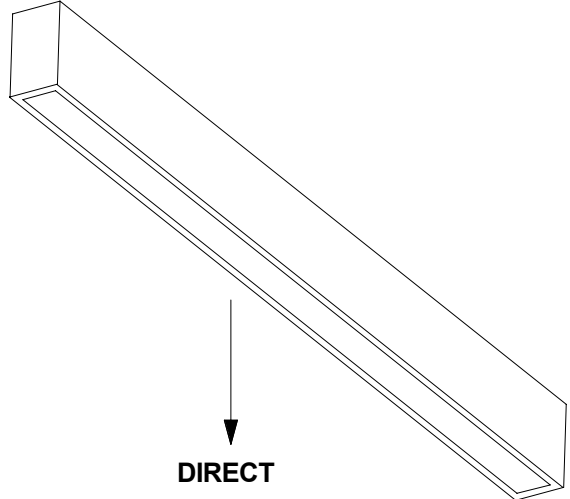

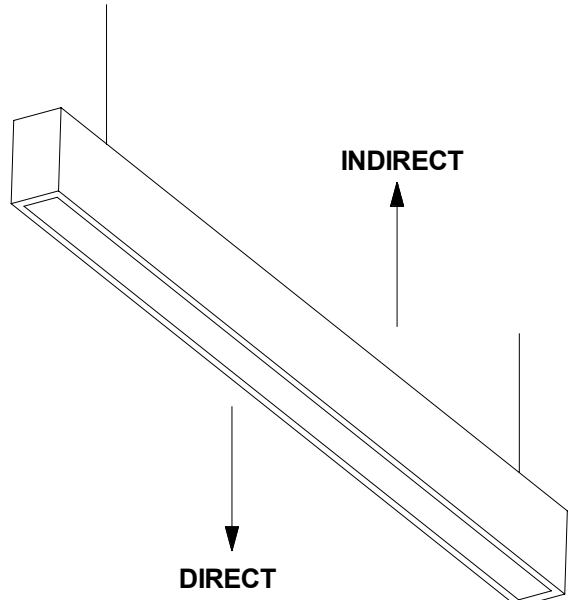

**ELECTRICAL LIGHTING PLAN**

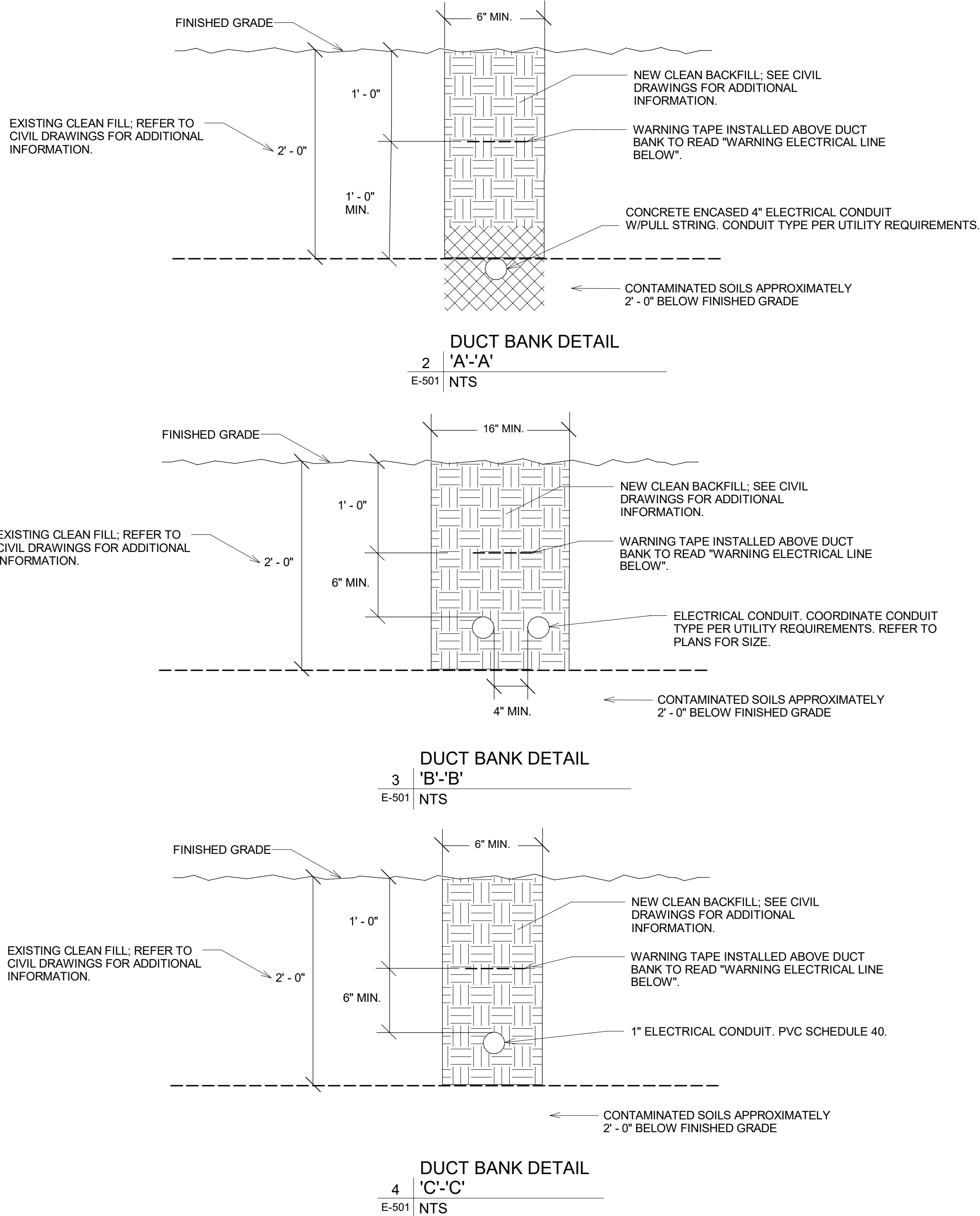


SHEET ID

**E-201**



		
<b>LUMINAIRE REQUIREMENTS - F3</b>  1. HOUSING - ONE PIECE 1.5" EXTRUDED ALUMINUM HOUSING. 20 GA. STEEL END CAPS. HIGHLY-REFLECTIVE PAINTED 22 GA. STEEL REFLECTORS. SPECIFIABLE LUMINAIRE/ROW LENGTH IN 1' INCREMENT, WITH A 2' MINIMUM, BASED ON T-CENTERS. HOUSING LENGTH IS 1" SHORTER THAN SPECIFIED.  2. FINISH - CONFIRM COLOR WITH ARCHITECT. POLYESTER POWDER COAT APPLIED OVER MULTI-STAGE PRE-TREATMENT. REFLECTORS WITH HIGH REFLECTANCE POWDER COAT.  3. LIGHT SOURCE - LINEAR LEDS WITH MINIMUM 61K HOURS RATED LIFE AT L70 AND L90, 3500K, 80+ CRI AND MINIMUM EFFICACY OF 81 LUMENS/WATT. INITIAL LUMEN OUTPUT AS INDICATED IN LUMINAIRE SCHEDULE. "BATWING" STYLE OPTICS  4. DRIVER - REPLACEABLE, CONSTANT CURRENT DRIVER WITH MINIMUM 0.9PF, OPERATING VOLTAGE OF 120-277V, THERMAL MANAGEMENT, 0-10V - 1% DIMMING.  5. CERTIFICATION - UL AND cUL LISTED SUITABLE FOR DRY OR DAMP LOCATIONS, INDOOR USE ONLY.  6. MOUNTING - CEILING RECESSED.  7. OPTIONS - 120V-277V EMERGENCY BATTERY PACK  8. THIS SKETCH IS A NON-PROPRIETARY GRAPHIC REPRESENTATION OF A LUMINAIRE THAT MAY MEET THE SPECIFICATION REQUIREMENTS. IT IS NOT INTENDED TO INDICATE A CERTAIN MANUFACTURER OR PREFERENCE.	<b>LUMINAIRE REQUIREMENTS - F4</b>  1. HOUSING - DIE-FORMED, COLD-ROLLED STEEL, WITH NUMEROUS KNOCKOUTS, WHITE FINISH, REINFORCEMENT RIBS FOR RIGIDITY AND TWO DIFFERENT REFLECTORS FOR PRECISE DISTRIBUTION CONTROL. OPTIONAL LENGTHS OF 24 INCH, 48 INCH, OR 96 INCH. (48 INCH ROUND LENS CHOSEN)  2. FINISH - CONFIRM COLOR WITH ARCHITECT. MULTI-STAGE, IRON PHOSPHATE PRETREATMENT FINISHED WITH HIGH-REFLECTANCE, ENAMEL COAT, PAINTED AFTER FABRICATION.  3. LIGHT SOURCE - TM21 RATING LEDS WITH MINIMUM 60K HOURS RATED LIFE AT L87, 3500K, 80 CRI AND MINIMUM EFFICACY OF 120 LUMENS/WATT. INITIAL LUMEN OUTPUT AS INDICATED IN LUMINAIRE SCHEDULE. CLEAR LENS  4. DRIVER - REPLACEABLE, INTEGRAL, HIGH EFFICIENCY DRIVER OPERATING VOLTAGE OF 120-277V, 0-10V - 1% TO 100% DIMMING.  5. CERTIFICATION - UL CERTIFIED FOR SAFETY, DAMP LOCATION, DLC QUALIFIED, ISO CERTIFIED, AND ROHS COMPLIANT. COMPLIES WITH T24 TESTING STANDARDS.  6. MOUNTING - CHAIN HUNG.  7. OPTIONS - 14-WATT, 120V-277V EMERGENCY BATTERY PACK 36" CHAIN HANGER  8. THIS IS A NON-PROPRIETARY GRAPHIC REPRESENTATION OF A LUMINAIRE THAT MAY MEET THE SPECIFICATION REQUIREMENTS. IT IS NOT INTENDED TO INDICATE A CERTAIN MANUFACTURER OR PREFERENCE.	<b>LUMINAIRE REQUIREMENTS - F1</b>  1. HOUSING - ONE PIECE 2.5" EXTRUDED ALUMINUM HOUSING. 20 GA. STEEL END CAPS. HIGHLY-REFLECTIVE PAINTED 22 GA. STEEL REFLECTORS. SPECIFIABLE LUMINAIRE/ROW LENGTH IN 1' INCREMENT, WITH A 2' MINIMUM. HOUSING LENGTH IS 1" SHORTER THAN SPECIFIED.  2. FINISH - CONFIRM COLOR WITH ARCHITECT. MATTE HOUSING FINISH WITH POLYESTER POWDER COAT APPLIED OVER MULTI-STAGE PRE-TREATMENT. REFLECTORS WITH HIGH REFLECTANCE POWDER COAT.  3. LIGHT SOURCE - LINEAR LEDS WITH MINIMUM 61K HOURS RATED LIFE AT L70 AND L90, 3000K, AND MINIMUM EFFICACY OF 96 LUMENS/WATT. INITIAL LUMEN OUTPUT AS INDICATED IN LUMINAIRE SCHEDULE. FLUSH SATIN LENS SHIELDING  4. DRIVER - REPLACEABLE, CONSTANT CURRENT DRIVER WITH MINIMUM 0.9PF, OPERATING VOLTAGE OF 120-277V, THERMAL MANAGEMENT, 0-10V - 1% DIMMING.  5. CERTIFICATION - UL AND cUL LISTED FOR WET LOCATION SURFACE MOUNTED APPLICATIONS IN INDOOR AND OUTDOOR ENVIRONMENTS. LUTRON DRIVERS NOT RECOMMENDED FOR OUTDOOR ENVIRONMENTS BELOW 0 DEGREES CELSIUS  6. MOUNTING - SURFACE.  7. OPTIONS - 120V-277V EMERGENCY BATTERY PACK  8. THIS SKETCH IS A NON-PROPRIETARY GRAPHIC REPRESENTATION OF A LUMINAIRE THAT MAY MEET THE SPECIFICATION REQUIREMENTS. IT IS NOT INTENDED TO INDICATE A CERTAIN MANUFACTURER OR PREFERENCE.
<b>RECESSED LED</b>	<b>CHAIN HUNG UTILITY LED STRIP ROUND LENSED LIGHT</b>	<b>SURFACE LED - WET LOCATION</b>
		
<b>LUMINAIRE REQUIREMENTS - F5</b>  1. HOUSING - DIE-CAST ALUMINUM HOUSING CONFIRM FINISH WITH ARCHTIECT.  2. LIGHT SOURCE - LEDS WITH MINIMUM 100K HOURS RATED LIFE AT L90, 3000K COLOR TEMPERATURE, MINIMUM 80 CRI, AND MINIMUM EFFICACY OF 145 LUMENS/WATT. INITIAL LUMEN OUTPUT AS INDICATED IN LUMINAIRE SCHEDULE.  3. DRIVER - REPLACEABLE, HIGH-EFFICIENCY DRIVER WITH MINIMUM 90% PF, OPERATING VOLTAGE OF 120-277V.  4. CERTIFICATION - CSA CERTIFIED, UL, WET LOCATION, DARK SKY, NIGHTTIME, IP66 RATED, DLC QUALIFIED, COMPLIES WITH LM79, LM80, TM80 AND TM21 TESTING STANDARDS. CEC COMPLIANT WHEN EQUIPPED WITH EMERGENCY BATTERY BACK-UP.  5. MOUNTING - SURFACE, WALL.  6. OPTIONS - EMERGENCY BATTERY BACKUP  7. THIS IS A NON-PROPRIETARY GRAPHIC REPRESENTATION OF A LUMINAIRE THAT MAY MEET THE SPECIFICATION REQUIREMENTS. IT IS NOT INTENDED TO INDICATE A CERTAIN MANUFACTURER OR PREFERENCE.	<b>LUMINAIRE REQUIREMENTS - F2</b>  1. HOUSING - ONE PIECE 1.5" EXTRUDED ALUMINUM HOUSING. CAST ALUMINUM END CAPS. HIGHLY-REFLECTIVE PAINTED 22 GA. STEEL REFLECTORS. SPECIFIABLE LUMINAIRE/ROW LENGTH IN 1' INCREMENT, WITH A 4' MINIMUM (4' LENGTH CHOSEN).  2. FINISH - CONFIRM COLOR WITH ARCHITECT. HOUSING FINISH WITH POLYESTER POWDER COAT APPLIED OVER MULTI-STAGE PRE-TREATMENT. REFLECTORS WITH HIGH REFLECTANCE POWDER COAT.  3. LIGHT SOURCE - LINEAR LEDS WITH MINIMUM 61K HOURS RATED LIFE AT L70 AND L90, 3500K, 80 CRI AND MINIMUM EFFICACY OF 112 LUMENS/WATT. INITIAL LUMEN OUTPUT AS INDICATED IN LUMINAIRE SCHEDULE. "BATWING" OPTIC TOP/BATWING LENS BOTTOM  4. DRIVER - REPLACEABLE, CONSTANT CURRENT DRIVER WITH MINIMUM 0.9PF, OPERATING VOLTAGE OF 120-277V, THERMAL MANAGEMENT, 0-10V - 1% DIMMING.  5. CERTIFICATION - UL AND cUL LISTED SUITABLE FOR DRY OR DAMP LOCATIONS, INDOOR USE ONLY.  6. MOUNTING - SUSPENDED.  7. OPTIONS - BLACK CORD, 120V-277V EMERGENCY BATTERY PACK  8. THIS SKETCH IS A NON-PROPRIETARY GRAPHIC REPRESENTATION OF A LUMINAIRE THAT MAY MEET THE SPECIFICATION REQUIREMENTS. IT IS NOT INTENDED TO INDICATE A CERTAIN MANUFACTURER OR PREFERENCE.	<b>LUMINAIRE REQUIREMENTS - F6</b>  1. HOUSING - EXTRUDED ALUMINUM HOUSING LED BOLLARD. CONFIRM FINISH WITH ARCHITECT.  2. LIGHT SOURCE - LEDS WITH MINIMUM 100K HOURS RATED LIFE AT L90, 3000K COLOR TEMPERATURE, MINIMUM 80 CRI, AND MINIMUM EFFICACY OF 30 LUMENS/WATT. FULL CUTOFF LENSES.  3. DRIVER - REPLACEABLE, CONSTANT CURRENT DRIVER WITH MINIMUM 0.9 PF, OPERATING VOLTAGE OF 120-277V, THERMAL MANAGEMENT, 0-10V - 1% DIMMING.  4. THIS SKETCH IS A NON-PROPRIETARY GRAPHIC REPRESENTATION OF A LUMINAIRE THAT MAY MEET THE SPECIFICATION REQUIREMENTS. IT IS NOT INTENDED TO INDICATE A CERTAIN MANUFACTURER OR PREFERENCE.
<b>LED EXTERIOR WALL PACK</b>	<b>DIRECT/INDIRECT LED PENDANT</b>	<b>LED OUTDOOR BOLLARD</b>



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REVISIONS

MARK

DATE

DESCRIPTION

DESIGNED BY:  
PH

DRAWN BY:  
PH

CHECKED BY:  
AC

APPROVED BY:  
CH

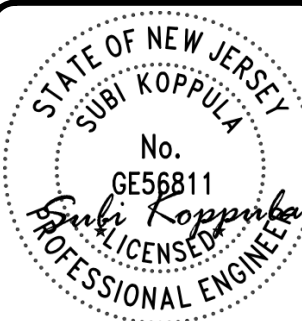
DATE:  
09/24/2021

PROJECT NO.:  
60620247

U.S. ARMY CORPS OF ENGINEERS  
KANSAS CITY DISTRICT

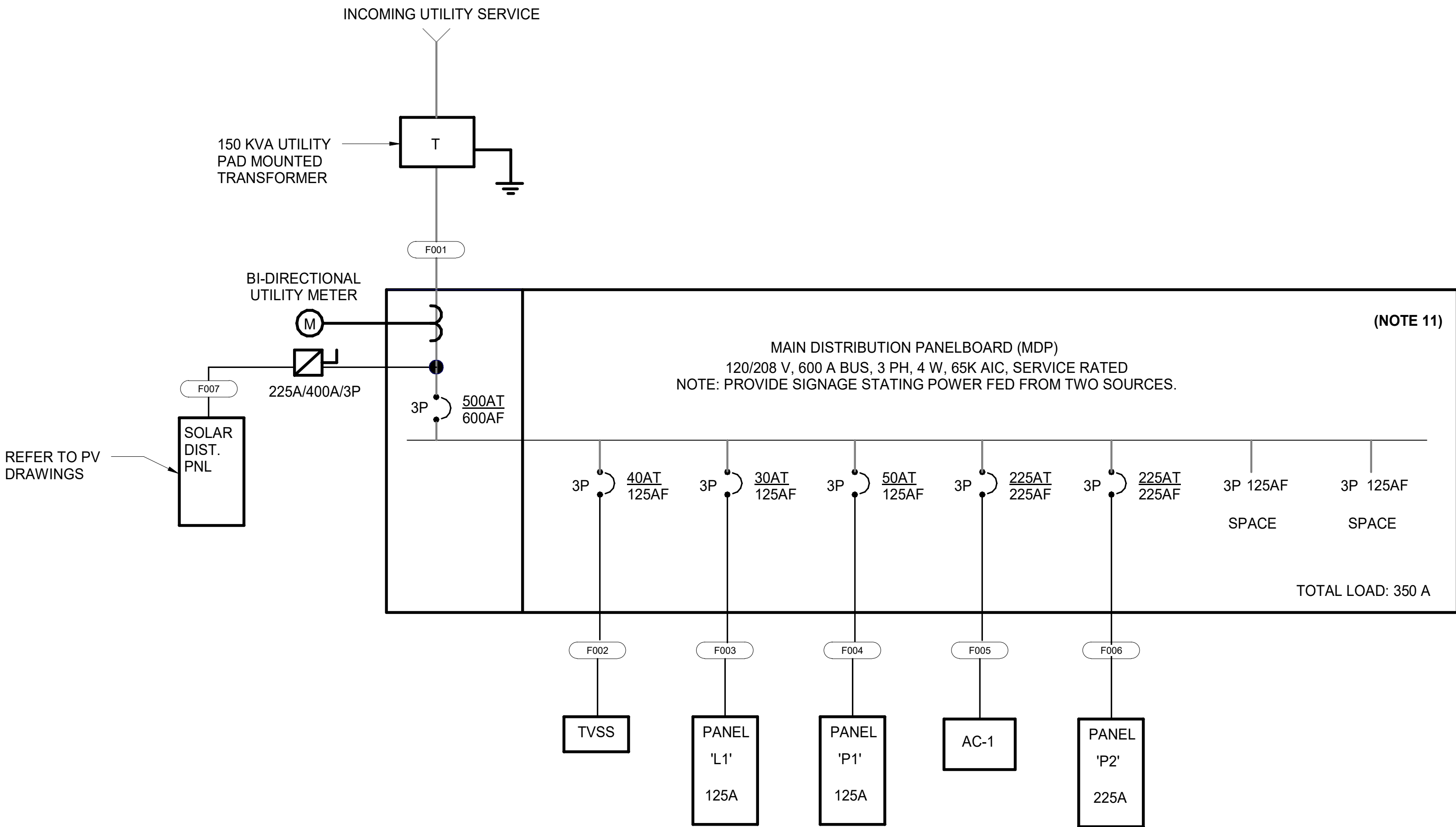
AECOM  
100 RED SCHOOLHOUSE RD  
CHESTNUT RIDGE, NY

ROEBLING STEEL SUPERFUND SITE  
VILLAGE OF ROEBLING, FLORENCE TOWNSHIP, NJ -  
OPERABLE UNIT 4 - PRESTRECHER/PRETENSIONING SYSTEM BUILDING



SHEET ID

E-501



ELECTRICAL ONE-LINE DIAGRAM  
NTS

FEEDER SCHEDULE			
FEEDER TAG	FEEDER SIZE	FEEDER LENGTH	VOLTAGE DROP %
F001	2 SETS [4-350 KCMIL & 1#3/0 G. IN 3 1/2" C.]	25	<0.25
F002	3#8 & 1#10 G. IN 3/4" C.	10	<0.25
F003	4#1 & 1#6 G. IN 1 1/2" C.	10	<0.25
F004	4#1 & 1#6 G. IN 1 1/2" C.	10	<0.25
F005	3#4/0 & 1#4 G. IN 2 1/2" C.	30	<0.5
F006	4#4/0 & 1#4 G. IN 2 1/2" C.	10	<0.25
F007	4#4/0 & 1#4 G. IN 2 1/2" C.	10	<0.25

NOTES:

- NO PIPING, DUCTS OR EQUIPMENT FOREIGN TO THE ELECTRICAL EQUIPMENT SHALL BE PERMITTED TO BE LOCATED WITHIN THE DEDICATED SPACE ABOVE THE ELECTRICAL EQUIPMENT PER NEC110.26(E).
- SUFFICIENT ACCESS AND WORKING SPACE SHALL BE PROVIDED AND MAINTAINED ABOUT ALL ELECTRICAL EQUIPMENT TO PERMIT READY AND SAFE OPERATION AND MAINTENANCE OF SUCH EQUIPMENT PER NEC110.26.
- ALL ELECTRICAL EQUIPMENT SHALL BE LISTED AND IDENTIFIED FOR USE WITH 75°C RATED CONDUCTORS.
- ALL DISTRIBUTION BOARDS SHALL BE FREE STANDING WITH COPPER BUS BARS, FULL NEUTRAL BUS AND SEPARATE GROUND BUS COMPLYING WITH NEMA.
- ALL ELECTRICAL DISTRIBUTION AND OVER CURRENT PROTECTIVE DEVICES SHALL BE FULLY RATED.
- CONTRACTOR SHALL PERFORM A SHORT CIRCUIT AND ARC FLASH ANALYSIS IN ACCORDANCE WITH NFPA 70E AND PROVIDE WARNING SIGNS. ARC FLASH ANALYSIS SHALL BE SUBMITTED TO THE CONTRACTING OFFICER FOR REVIEW AND APPROVAL PRIOR TO MANUFACTURE AND/OR INSTALL OF SIGNS.
- OVER CURRENT AND FAULT PROTECTION DEVICES SHALL BE COORDINATED WITH LINE-SIDE AND LOAD-SIDE TO ISOLATE ANY ELECTRICAL FAULT OR OVERLOAD FROM THE REST OF THE SYSTEM. A PROTECTIVE DEVICE COORDINATION STUDY SHALL BE COMPLETED BY THE CONTRACTOR AND SUBMITTED TO THE ENGINEER OF RECORD TO APPROVE THE LEVEL OF COORDINATION. ALL PROTECTIVE DEVICES SHALL BE ADJUSTED TO SETTINGS PROVIDED BY THE APPROVED STUDY.
- PROVIDE SERVICE ENTRANCE EQUIPMENT TESTING PER INTERNATIONAL ELECTRICAL TESTING ASSOCIATION (NETA).
- PANELBOARDS SHALL HAVE COPPER BUSES AND UTILIZE BOLT-ON TYPE CIRCUIT BREAKERS AND SHALL BE WALL MOUNTED, DEADFRONT TYPE WITH HINGED FRONTS.
- THE BUILDING ELECTRICAL SERVICE SHALL BE PROVIDED WITH A SURGE PROTECTION SYSTEM THAT SHALL CONSIST OF SURGE PROTECTION PACKAGES CONNECTED TO ALL PANELBOARDS AND SWITCHBOARDS. THE DEVICES SHALL BE EXTERNAL UL 1449 4TH EDITION LISTED, TYPE 1 AND 2 SPD.
- GROUND TO GROUNDING ELECTRODE SYSTEM PER NEC 250.50.
- PANELBOARDS SHALL BE PROVIDED WITH HINGED DOOR-IN-DOOR LOCKABLE COVERS.
- FOR LEGENDS, ABBREVIATIONS AND GENERAL NOTES, REFER TO DRAWING E-100.



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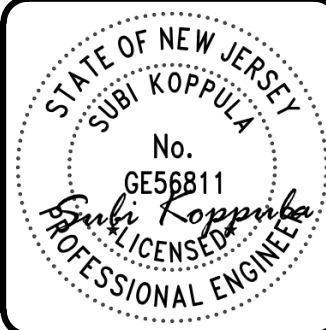
REVISIONS

MARK	DATE	DESCRIPTION

DESIGNED BY: PH	DATE: 09/24/2021	DRAWN BY: PH	PROJECT NO.: 60620247	CHECKED BY: AC	APPROVED BY: CH
U.S. ARMY CORPS OF ENGINEERS KANSAS CITY DISTRICT				AECOM 100 RED SCHOOLHOUSE RD CHESTNUT RIDGE, NY	

ROEBLING STEEL SUPERFUND SITE  
VILLAGE OF ROEBLING, FLORENCE TOWNSHIP, NJ -  
OPERABLE UNIT 4 - PRESTRECHER/PRETENSIONING SYSTEM BUILDING

ELECTRICAL ONE LINE DIAGRAM



SHEET ID

E-601



9/24/2021 12:57:13 PM 1 2 3 4 5 6

BRANCH PANEL: P1

VOLTS: 120/208 Wye  
PHASES: 3  
WIRES: 4  
MAINS: MLO  
SCR: 42KAIC

CKT	Circuit Description	Trip	Poles	A	B	C	Poles	Trip	Circuit Description	CKT
1	VIEWING AREA RECEPTACLES	20 A	1	720 VA 900 VA	360 VA 900 VA			1	20 A VIEWING AREA RECEPTACLES	2
3	VIEWING AREA RECETPACLES	20 A	1					1	20 A VIEWING AREA RECETPACLES	4
5	ELECTRIC ROOM RECEPTACLES	20 A	1			540 VA 360 VA		1	20 A OUTDOOR RECEPTACLES	6
7	OUTDOOR RECEPTACLES	20 A	1	360 VA 360 VA	0 VA 0 VA			1	20 A WATER FOUNTAIN	8
9	Spare	20 A	1					1	20 A Spare	10
11	Spare	20 A	1			0 VA 0 VA		1	20 A Spare	12
13	Spare	20 A	1	0 VA 0 VA				1	20 A Spare	14
15	Spare	20 A	1		0 VA 0 VA			1	20 A Spare	16
17	Spare	20 A	1			0 VA 0 VA		1	20 A Spare	18
19	Spare	20 A	1					1	20 A Spare	20
21	Spare	20 A	1	0 VA 0 VA	0 VA 0 VA			1	20 A Spare	22
23	Spare	20 A	1			0 VA 0 VA		1	20 A Spare	24
25	Spare	20 A	1					1	20 A Spare	26
27	Spare	20 A	1					1	20 A Spare	28
29	Spare	20 A	1					1	20 A Spare	30
31	Spare	20 A	1					1	20 A Spare	32
33	Spare	20 A	1					1	20 A Spare	34
35	Spare	20 A	1					1	20 A Spare	36
37	Spare	20 A	1					1	20 A Spare	38
39	Spare	20 A	1					1	20 A Spare	40
41	Spare	20 A	1					1	20 A Spare	42
Total Load:				2340 VA	1260 VA	900 VA				
Total...				20 A	11 A	8 A				

Legend:

Load Classification	Connected Load	Demand Factor	Estimated...	Panel Totals
Load Classification	360 VA	100.00%	360 VA	
				Total Conn. Load: 4500 VA
				Total Est. Demand: 4500 VA
				Total Conn. Current: 12 A
				Total Est. Demand Current: 12 A

Notes:

BRANCH PANEL: P2

VOLTS: 120/208 Wye  
PHASES: 3  
WIRES: 4  
MAINS: MLO  
SCR: 42KAIC

CKT	Circuit Description	Trip	Poles	A	B	C	Poles	Trip	Circuit Description	CKT
1	JANITORS CLOSET UNIT HEATER	20 A	3	1667... 1667...	1667... 1667...			3	20 A VESTIBULE UNIT HEATER	2
3	--	--	--					--	--	4
5	--	--	--			1667... 1667...		--	--	6
7	RESTROOM UNIT HEATER	20 A	3	1600... 1667...	1600... 1667...			3	20 A ELECTRIC ROOM UNIT HEATER	8
9	--	--	--					--	--	10
11	--	--	--			1600... 1667...		--	--	12
13	RESTROOM ELECTRIC HEATER	20 A	3	1600... 600 VA	1600... 600 VA			3	20 A RESTROOM EXHAUST FAN	14
15	--	--	--					--	--	16
17	--	--	--			1600... 600 VA		--	--	18
19	JANITORS HOT WATER HEATER	60 A	3	5333... 600 VA	5333... 600 VA			3	20 A RESTROOM EXHAUST FAN	20
21	--	--	--					--	--	22
23	--	--	--			5333... 600 VA		--	--	24
25	RESTROOM HOT WATER HEATER	20 A	3	1367... 1367...	1367... 1367...			3	20 A RESTROOM HOT WATER HEATER	26
27	--	--	--					--	--	28
29	--	--	--			1367... 1367...		--	--	30
31	Space	--	--	0 VA 600 VA	0 VA 600 VA			3	20 A JANITOR'S CL. EXHAUST FAN	32
33	Space	--	--					--	--	34
35	Space	--	--			0 VA 600 VA		--	--	36
37	Space	--	--	0 VA				3	20 A Spare	38
39	Space	--	--		0 VA			--	--	40
41	Space	--	--			0 VA		--	--	42
Total Load:				18068 VA	18068 VA	18068 VA				
Total...				151 A	151 A	151 A				

Legend:

Load Classification	Connected Load	Demand Factor	Estimated...	Panel Totals
HVAC	54203 VA	100.00%	54203 VA	
				Total Conn. Load: 54203 VA
				Total Est. Demand: 54203 VA
				Total Conn. Current: 150 A
				Total Est. Demand Current: 150 A

Notes:

BRANCH PANEL: L1

VOLTS: 120/208 Wye  
PHASES: 3  
WIRES: 4  
MAINS: MLO  
SCR: 42KAIC

CKT	Circuit Description	Trip	Poles	A	B	C	Poles	Trip	Circuit Description	CKT
1	PENDANT LIGHTING	20 A	1	120 VA 132 VA	280 VA 240 VA			1	20 A PENDANT LIGHTING	2
3	MAIN LEVEL LIGHTING	20 A	1			60 VA 288 VA		1	20 A MAIN LEVEL LIGHTING	4
5	ELECTRICAL/STORAGE ROOM LIGHTING	20 A	1					1	20 A EMERGENCY LIGHTING	6
7	SITE LIGHTING	20 A	1	120 VA 0 VA				1	20 A Spare	8
9	Spare	20 A	1		0 VA 0 VA			1	20 A Spare	10
11	Spare	20 A	1			0 VA 0 VA		1	20 A Spare	12
13	Spare	20 A	1	0 VA 0 VA				1	20 A Spare	14
15	Spare	20 A	1		0 VA 0 VA			1	20 A Spare	16
17	Spare	20 A	1			0 VA 0 VA		1	20 A Spare	18
19	Spare	20 A	1	0 VA 0 VA				1	20 A Spare	20
21	Spare	20 A	1		0 VA 0 VA			1	20 A Spare	22
23	Spare	20 A	1			0 VA 0 VA		1	20 A Spare	24
25	Spare	20 A	1					1	20 A Spare	26
27	Spare	20 A	1					1	20 A Spare	28
29	Spare	20 A	1					1	20 A Spare	30
31	Spare	20 A	1					1	20 A Spare	32
33	Spare	20 A	1					1	20 A Spare	34
35	Spare	20 A	1					1	20 A Spare	36
37	Spare	20 A	1					1	20 A Spare	38
39	Spare	20 A	1					1	20 A Spare	40
41	Spare	20 A	1					1	20 A Spare	42
Total Load:				252 VA	520 VA	348 VA				
Total...				2 A	4 A	3 A				

Legend:

Load Classification	Connected Load	Demand Factor	Estimated...	Panel Totals
Lighting	1120 VA	100.00%	1120 VA	
				Total Conn. Load: 1120 VA
				Total Est. Demand: 1120 VA
				Total Conn. Current: 3 A
				Total Est. Demand Current: 3 A

Notes:



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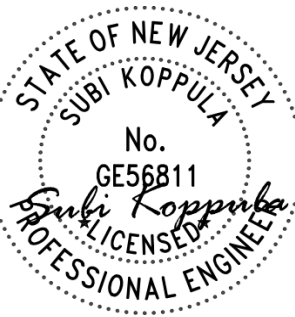
REVISIONS

MARK DATE DESCRIPTION

DESIGNED BY: DATE: 09/24/2021  
PH PROJECT NO.:  
DRAWN BY: PH 60620247  
CHECKED BY: AC  
APPROVED BY: CH

U.S. ARMY CORPS OF ENGINEERS  
KANSAS CITY DISTRICT  
AECOM  
100 RED SCHOOLHOUSE RD  
CHESTNUT RIDGE, NY

ROEBLING STEEL SUPERFUND SITE  
VILLAGE OF ROEBLING, FLORENCE TOWNSHIP, NJ -  
OPERABLE UNIT 4 - PRESTRECHER/RETENSIONING SYSTEM BUILDING



SHEET ID

E-902

VERIFY SCALE BAR IS ONE INCH ON ORIGINAL DRAWING

ELECTRICAL SCHEDULES II

6  
5  
4  
3  
2  
1

A

B

C

D

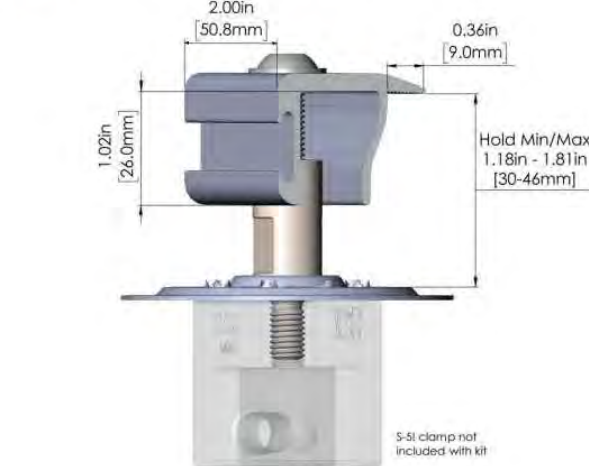
E

F

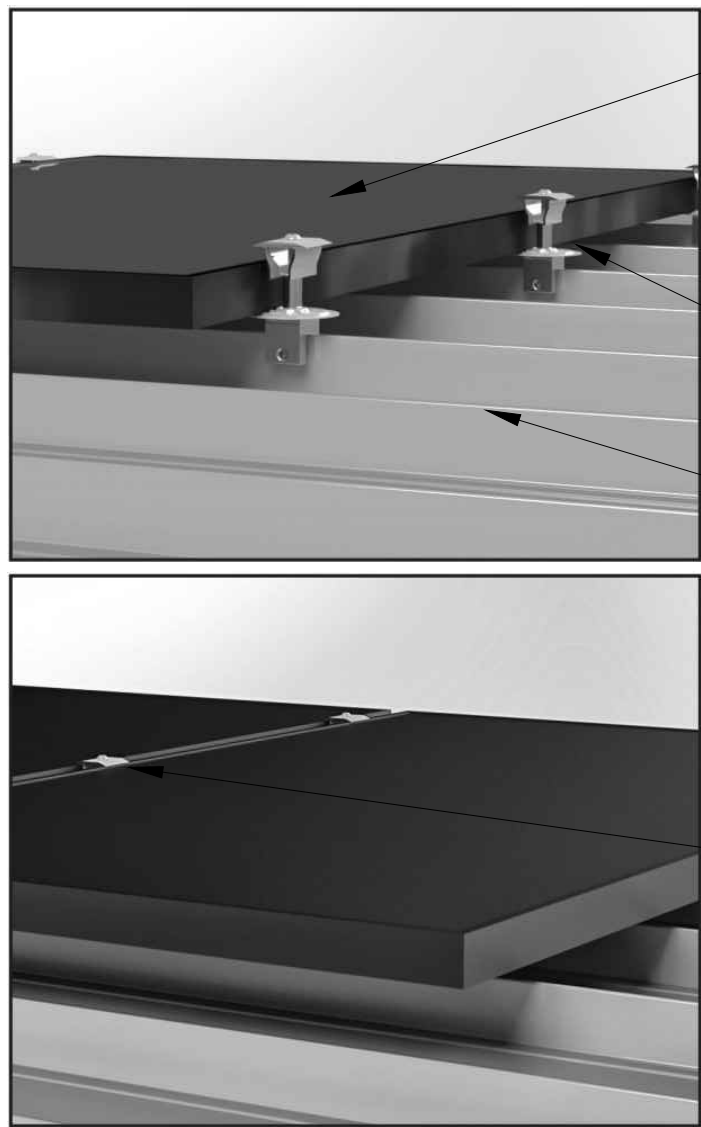
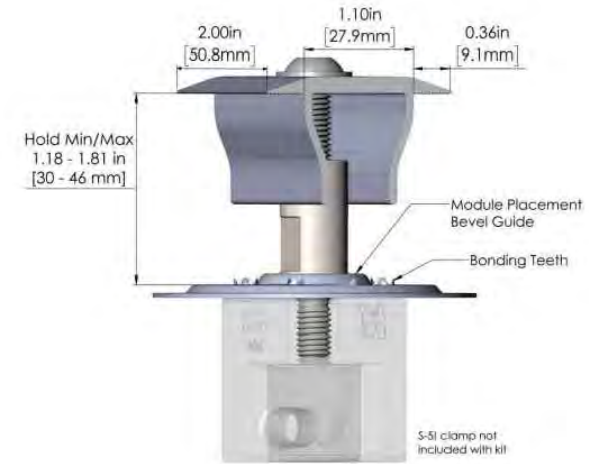
G

H

PV Kit 2.0™ EdgeGrab



PV Kit 2.0™ MidGrab



PV MODULE

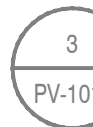
S-5 CLAMP

STANDING SEAM ROOF

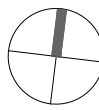
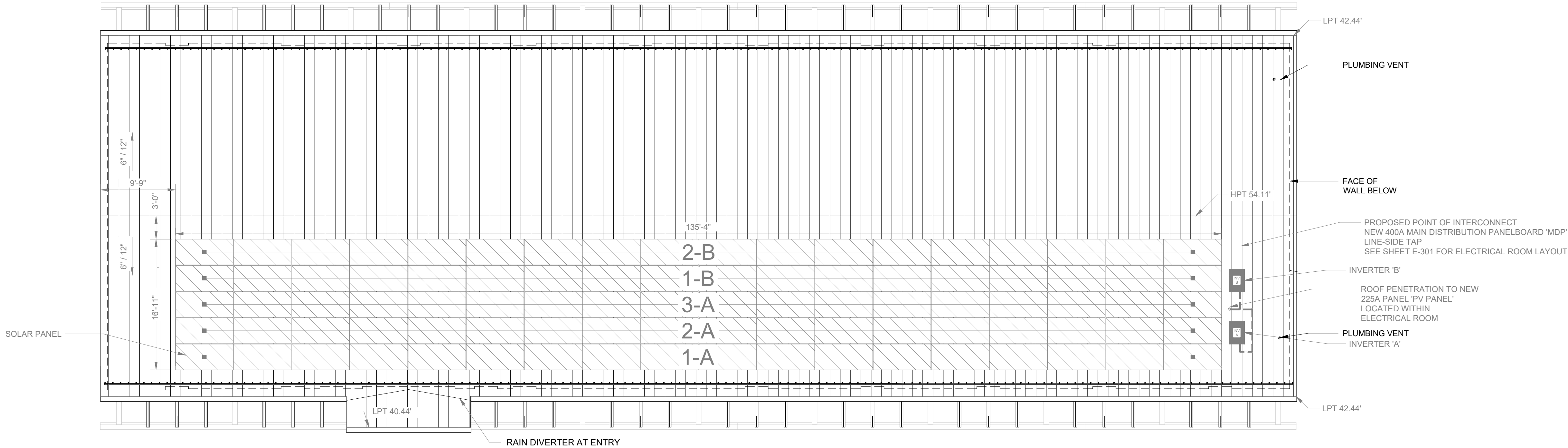
MODULE TO MODULE  
S-5 CLAMPING



S-5 PV KIT 2.0 CLAMP DETAILS  
NO SCALE



S-5 PV KIT 2.0 MOUNTING  
NO SCALE



SOLAR ELECTRICAL SITE PLAN  
1" = 8'-0"

ROEBLING STANDING SEAM ROOF MOUNT SYSTEM  
DESCRIPTION

MODULE	LONGI SOLAR 550W (OAE)
NUMBER OF PV MODULES	90 (18 MODULES/STRING)
SYSTEM SIZE(DC)	49.5 kW
INVERTER MODEL (QTY)	CHINT CPS SCA25KTL-DO/U-208 (2) (OAE)
SYSTEM SIZE(AC)	50 kW
ARRAY TILT	27°
ARRAY AZIMUTH	171°
RACKING	S-5 PV KIT 2.0 (OAE)
ESTIMATED ENERGY PRODUCTION (YEAR 1)	72.15 MWh
SPECIFIC PRODUCTION	1458 kWh/kWp

SHEET NOTES

1. PHOTOVOLTAIC ARRAY, SYSTEM DESIGN AND ALL COMPONENTS ARE DELEGATED DESIGN. CONTRACTOR TO COORDINATE PRIOR TO CONSTRUCTION.
2. INVERTERS TO BE MOUNTED ON UNISTRUT TO STANDING SEAM ROOFING FOLLOWING THE MANUFACTURES MOUNTING INSTRUCTIONS AND RECOMMENDED CLEARANCES PER NEC.
3. SOLAR ARRAY SHALL BE MOUNTED TO STANDING SEAM ROOF USING S-5 CLIPS, OR APPROVED EQUIVALENT
4. ROOF PENETRATIONS SHALL BE COMPLIANT WITH ALL NATIONAL AND LOCAL STANDARDS. SEE MANUFACTURER STRUCTURAL DRAWINGS FOR EXACT PLACEMENT AND DIMENSIONS OF SOLAR ARRAY.
- 5.

LEGEND:



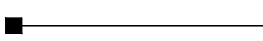
LONGI SOLAR 550W SOLAR MODULE



INVERTER "INV-X" (X=ARRAY)



AC CONDUIT



DC STRING WIRING



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REVISIONS

MARK

DATE

DESCRIPTION

DESIGNED BY:

KBW

U.S. ARMY CORPS OF ENGINEERS  
KANSAS CITY DISTRICT

DRAWN BY:

KBW

AECOM  
100 RED SCHOOLHOUSE RD  
CHESTNUT RIDGE, NY

CHECKED BY:

SM

APPROVED BY:

SM

DATE:

09/24/2021

PROJECT NO.:

60520247

ROEBLING STEEL SUPERFUND SITE  
VILLAGE OF ROEBLING - FLORENCE TOWNSHIP, NJ  
OPERABLE UNIT 4 - PRESTRETCHER/PRE-TENSIONING SYSTEM BUILDING

PRELIMINARY  
NOT FOR CONSTRUCTION

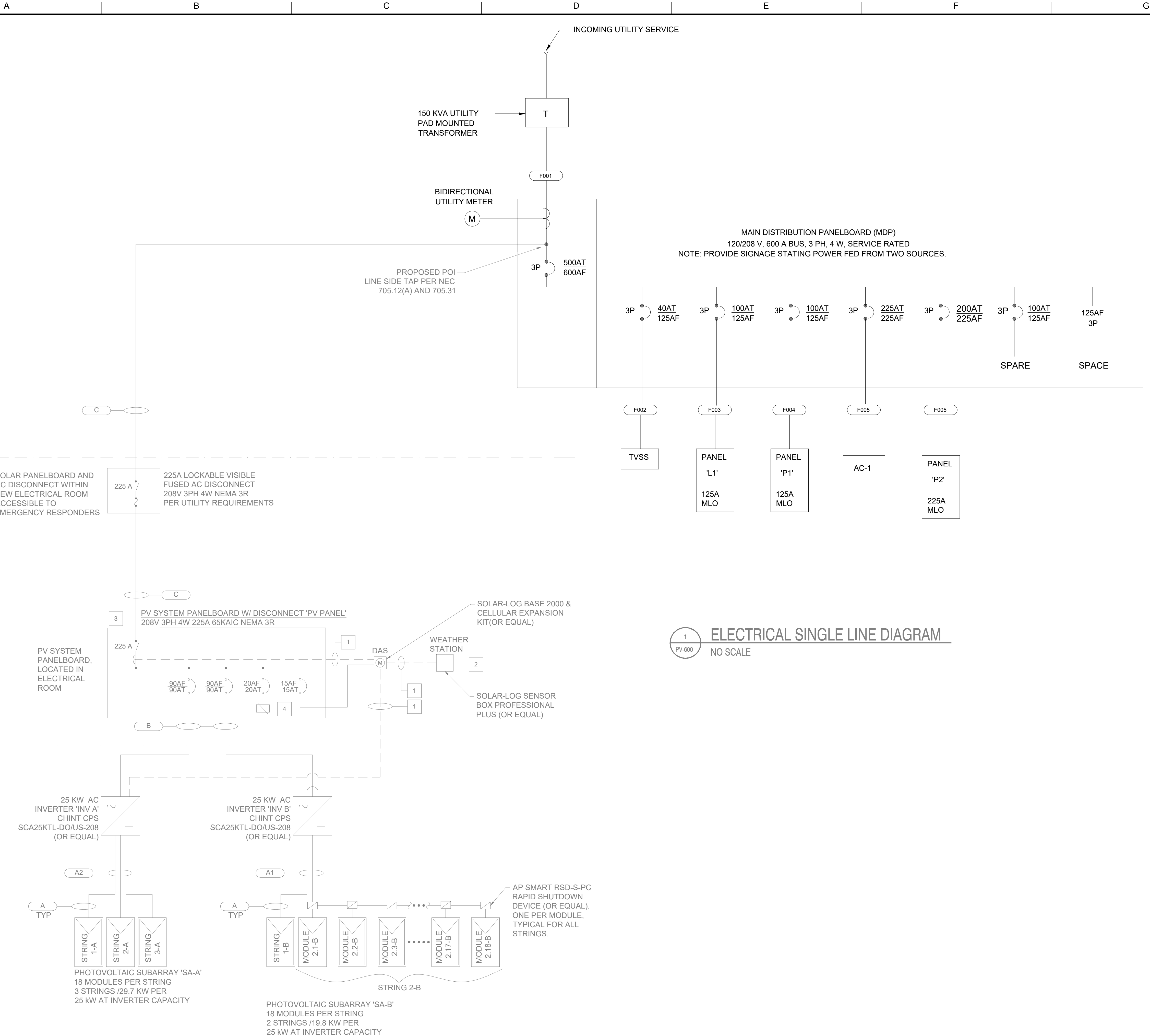
SHEET ID

PV-101

VERIFY SCALE BAR IS ONE INCH ON ORIGINAL DRAWING

SOLAR ELECTRICAL SITE PLAN

6  
5  
4  
3  
2  
1



1  
PV-600  
ELECTRICAL SINGLE LINE DIAGRAM  
NO SCALE

SHEET NOTES

1. PHOTOVOLTAIC ARRAY, SYSTEM DESIGN AND ALL COMPONENTS ARE DELEGATED DESIGN. CONTRACTOR TO COORDINATE PRIOR TO CONSTRUCTION.
2. SEE DRAWING PV601 FOR FEEDER SCHEDULE
3. COORDINATION STUDY MUST BE PERFORMED AND THE PROPER SETTING MUST BE APPLIED TO SOLAR PV PROTECTION DEVICES. SETTINGS AND TESTING TO BE PERFORMED BY THE CONTRACTOR
4. ALL INVERTERS SHALL BE COMPLIANT WITH FCC PART 15, CLASS A
5. PV SYSTEM SHALL COMPLY WITH RAPID SHUTDOWN REQUIREMENTS AS STATED IN NEC 690.12

KEYED NOTES:

- 1 COMMUNICATION CABLE (TYP)
- 2 WEATHER STATION TO BE MOUNTED ON ROOF NEAR PV ARRAY, FREE FROM SHADING OBSTRUCTIONS AND IN PLANE OF ARRAY.
- 3 INCLUDE A MINIMUM OF TWO SPARE CB SLOTS FOR FUTURE USE.
- 4 ADD SURGE PROTECTION DEVICE.



US Army Corps  
of Engineers®

REVISIONS

MARK	DATE	DESCRIPTION

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U.S. ARMY CORPS OF ENGINEERS KANSAS CITY DISTRICT		AECOM 100 RED SCHOOLHOUSE RD CHESTNUT RIDGE, NY			

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